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Experiencing rock art: A phenomenological investigation of the Barrier Canyon tradition

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Abstract

The Barrier Canyon Style of rock art is found in south-eastern Utah, United States. It is the work of Late Archaic hunter-gatherers, and dates from approximately 4000 to 1500 B.P. This painted tradition is dominated by abstracted anthropomorphic figures, often depicted life-size. The landscape is a rugged one of deep, dry canyons bordered by sheer sandstone cliffs. It is within these canyons that the rock art is found.

The methodological foundations for this study are catered to different facets of the tradition. The macro-topography of the land lends itself well to current trends in the study of rock art and landscape. The micro-topographies of individual sites are ideal subjects for phenomenological and kinaesthetic investigations of place. The large anthropomorphic motifs are best examined in terms of Alfred Gell's theories of art and agency. Metaphor theory helps find meaning in all these elements. Together, they provide an understanding of the relationships between the rock art, the landscape, and those who produced and consumed the sites and their images.

The study begins with an experiential exploration of the study area – an embodied discussion of being-in-the-land. It proceeds through a discussion of how sites are discovered and accessed, and then moves on to a smaller-scale study of the physicality of the sites and the demands placed on the visitor by their local topography. Next, the study explores the positioning of the images on the rock, examining the agentive properties of the figures, and the immediate kinaesthetic effects the images impose on the visitor.

From here, the art is explored in detail, and then a series of in-depth case studies apply the findings on a site-specific level. Finally, a concluding chapter discusses metaphors gleaned from the art and the land, and brings them together with the experiences described to provide a fuller understanding of this rock art tradition.

I, the undersigned Michael Paul Firnhaber, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Acknowledgments

I want to express my thanks first and foremost to my fiancée, my family, my friends, and my co-workers who have helped me through this project by providing unfailing moral support, and by keeping me on track when I wandered off. Many thanks also to Chris Tilley for his excellent guidance and encouragement, and for sharing his knowledge with an eager student. Thanks to the Overseas Research Students Awards Scheme for their generous financial support. Thanks to Gary Cox, David Sucec, Jim Blazik, Chris Goetze, Donna and Norm Turnipseed, Morris Wolf, Blaine Miller, Gil Bowden, Charles Schelz, Gary Farmer, Nancy Mason, Doak Heyser, Brian Lee, and Don Christensen for their discussions, advice, direction, and encouragement. Thanks also to those individuals who were generous enough to share site location information with me – they will remain anonymous. Finally, special thanks are due to Marcus Sauer for risking life and limb to climb that treacherous ramp for the sake of my research.

A note on site names and numbers

Throughout this text, sites are referred to by both a name and a number. Because I have become contractually obliged by the National Park Service and the Bureau of Land Management to not disclose certain site information (even though they refused to give me the information I am not allowed to disclose, and I had to find it elsewhere), the site names used herein are mostly arbitrary, with the exception of sites which are classified as public, in which case the familiar name is used. The site numbers used here are in fact my own field numbers, and are used exclusively for this work.

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Introduction

> *While studying prehistoric rock art in and around the Zuni Pueblo in New Mexico, professor J. Young found it useful to draw on the knowledge of Zuni tribal elders, asking them for their contemporary perceptions of their ancestors' rock art. Young would show slides of local sites to these men, and usually received excellent feedback on the images. One day, however, Young got an answer she was not expecting. After showing images of a site to a tribal elder she had not worked with before, and asking him what he thought of the projected figures, the man replied "I don't know, I've never been there" (Young 2004, 83).*

Rock art is emplaced. It is permanently fixed to the land, and exists today in precisely the same locations in which it was produced. Most researchers take this simple fact for granted. It means one must travel into the field, and brave the elements in order to collect the raw data needed for future processing. Photographs are taken, measurements are made, maps are drawn – and then all are scrutinized in an air-conditioned room, often far from the sites themselves. This attitude, I have come to realize, is unfortunate, as it leads the researcher to disregard a very important aspect of every rock art site: its physical context. As the Zuni elder relates in the anecdote above, rock art cannot be adequately studied by means of photographs and maps alone. Rather, one must spend time in the land, even if it is raining; one must visit the sites at different times of the day, not just when the sun is at a prime angle for photographing the images. The experiences of travelling to and being at rock art sites involve certain constants, all of which were possible seats of meaning in the past. Those constants are primarily corporeal and sensorial experiences – interactions between one's physical being and one's surroundings. While the meanings attached to such experiences are not directly accessible, the experiences *are*. Further, they cannot be represented only in photographs, measurements or maps – they must be described.

The following is an investigation of a rock art tradition in the south-western United States known as the Barrier Canyon Style. It explores relationships between the rock art, the landscape, and the human body in terms of corporeal and sensorial experiences, and relates those experiences to the rock art itself. In other words, it approaches the rock art from the standpoint of bodily being-in-the-world. From this investigation will follow an increased understanding of several facets of this rock art tradition, including the placement of the sites within the landscape, the significance of the physicality of the sites, the significance of the images, and the role this rock art played for those who produced it. The methodology used for this study is informed by several bodies of theory, including Gell's anthropology of art, studies of the relationships between rock art and landscape, contemporary metaphor theory, and Tilley's phenomenological approach to emplaced cultural artefacts. In essence, this research is an attempt to understand a rock art tradition in terms of the ways in which the human subject engages with the art and its surroundings. Very little work has been done with this particular body of rock art, and this study will contribute significantly to a deeper understanding of the tradition.

This introductory chapter discusses the study area, the archaeological remnants of the people who lived there, and the life-ways of historic-era Native Americans living there. It also introduces the age and nature of the rock art, and places the art and this study within a context of related works.

The Land

The study area covers approximately 17,000 km^2 of the semi-desert region of south-eastern Utah, United States (Figure 1.1), and is centred on a region known affectionately as *canyon country*. It is a vast and largely uninhabited hinterland of rock and sand, characterized geologically by an uplifted plateau of ancient sandstone deposits cross-cut by deep canyons, some of which contain perennial streams and rivers. This makes for an extremely varied physical environment. The uplands are primarily bare sandstone bedrock, covered in places by stabilized sand held together by a variety of grasses, shrubs, and small trees. The red-walled canyons are dry most of the year; those few canyons which host permanent water courses are cooler and greener. These canyons vary

greatly in form from small ravines to massive gorges hundreds of metres deep. It is within the depths of these canyons that the rock art can be found; they therefore provide a focus for this study.

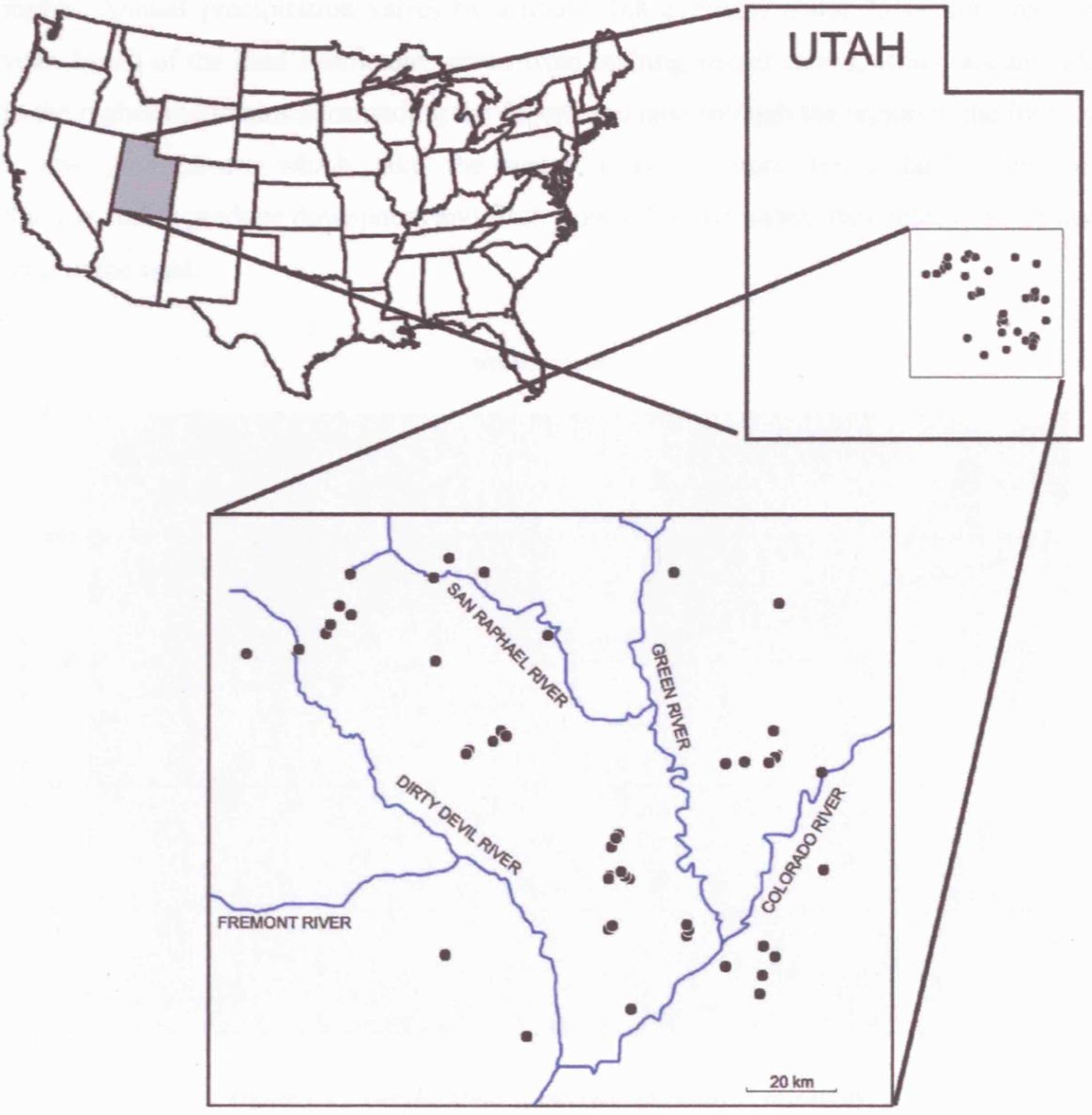

Figure 1.1 - This map shows the approximate location of the study area. Black dots represent one or more sites.

The 62 Barrier Canyon Style (BCS) rock art sites documented for this study vary in elevation from 1250 metres to over 2150 metres above sea level, averaging about 1600 metres (Figure 1.2). This high elevation, combined with the extreme aridity of the region, make for what climatologists call a 'high' or 'cold' desert. While summertime highs hover around 37 degrees, temperatures can drop as low as -15 degrees during winter nights. Annual precipitation varies by altitude, but averages about 25 centimetres per year. Much of the land's moisture comes from melting winter snows, which accumulate in the higher mountains surrounding the desert, and pass through the region in the form of a few great rivers which take the water away to more fertile lands. Summer thunderstorms produce downpours and flash floods, but the waters they release never last long in the heat.

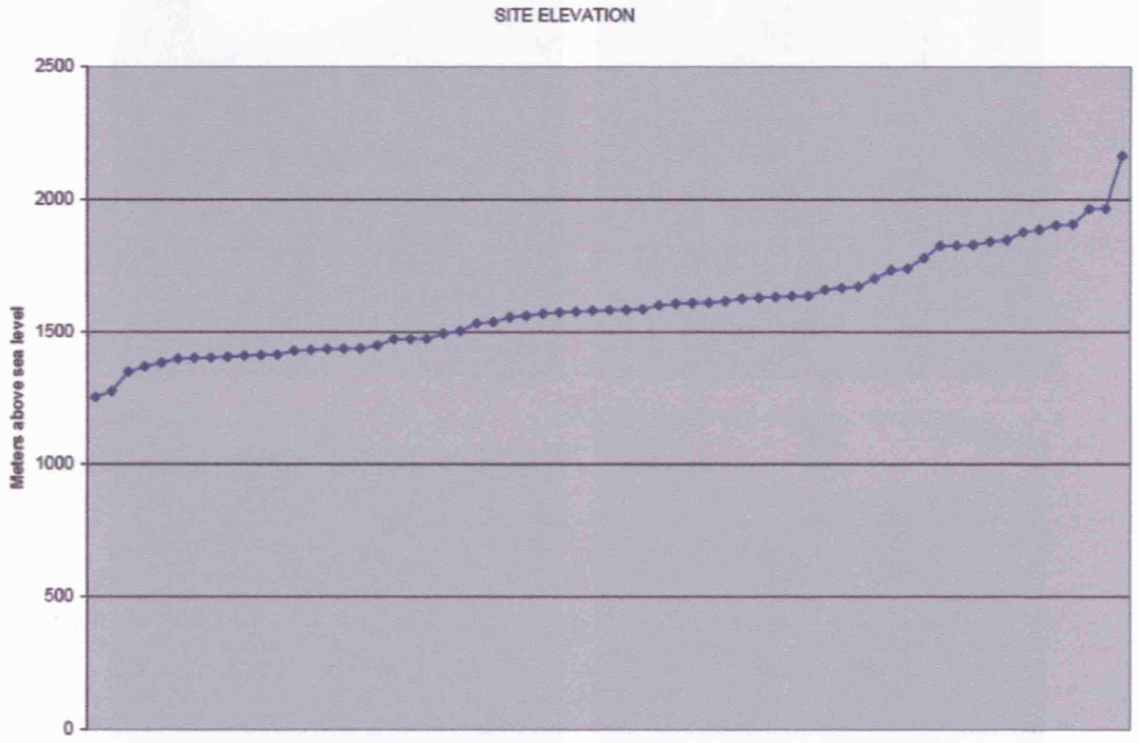

Figure 1.2 - The elevation of each site included in this study.

Much of the study area is covered by what is called a 'desert scrub' biotic community, a remarkably diverse assortment of xeric species which have adapted to the region's aridity. Low to mid elevations are dominated by prickly pear cactus, sagebrush and

blackbrush; extended areas of semi-desert grassland can also be found in the upland areas between canyons. Wetter areas, such as the banks of the few rivers, or spots along canyon bottoms where water seeps into the soil from underground springs, sport cottonwood and willow groves, accompanied by other species which look lush and bright against the pale greens and greys of the xeric flora. Pinyon pine and juniper are found dotted throughout the area, and in higher elevations they become denser, forming groves or even forests. Moving out of the range of the rock art and into the mountain peaks brings a traveller into forests of pine and spruce. This range of plant communities (Figure 1.3) is dependent on elevation – so much so that a single canyon side can span several biotic provinces.

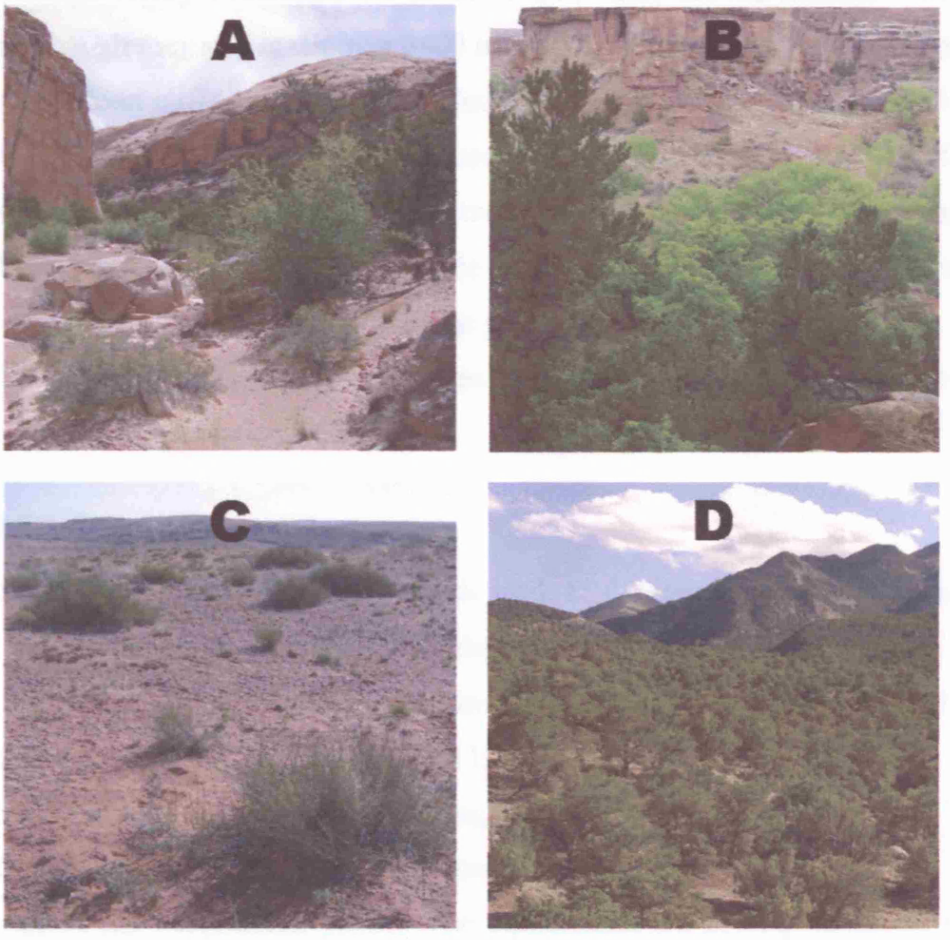

Figure 1.3 - Four common biotic communities found in the study area. A: Typical dry canyon environment, mixed juniper-pine stands and desert scrub. B: Typical wet canyon environment, similar to the dry canyon away from the water course, but green with willow and cottonwood along the water. C: Typical upland environment, sparse desert scrub and grasses. D: Low-elevation montane juniper woodland, in the foothills of the Henry Mountains.

Fauna in the region is equally diverse. Larger mammals, including mule deer, bighorn sheep and pronghorn antelope, can be found in the higher elevations of the study area. Smaller mammals, such as coyotes, various foxes, cotton tail rabbits, and an assortment of rodents, are ubiquitous throughout the region. Also present are a variety of small lizards, and many kinds of snakes including several species of rattlesnake; frogs and toads can be found in the wetter areas.

The whole study area is bounded on most sides by mountain ranges. To the east lie the La Sal and Abajo ranges which, reaching over 3600 metres at their highest, are snow-capped through much of the year. These mountains are visible from a large percentage of the study area. The Henry Mountains lie to the south; these are on average much lower mountains, though they still reach over 3400 metres in elevation. The north is bounded by the Book and Roan cliffs to the east, and Cedar Mountain, barely reaching 2200 metres, to the west. The 3000 metre Wasatch Plateau and 2000 metre Capitol Reef form the western edge. While elevations within the study area occasionally exceed 2000 metres, it is by and large a low region – essentially, the drainage of the Colorado and Green Rivers – which is surrounded on all sides by large peaks and plateaus. This drainage, and the foothills of the surrounding mountains, was home to the producers of BCS rock art, known today only as Archaic peoples.

The People

Human occupation in the study area extends back 11,000 years. In fact, Cowboy Cave, which is the richest archaeological site in the region, yielded several metres of cultural deposits which corresponded with about nine centuries of human utilization; the strata beneath the lowest cultural layer, dated to 11,500 B.P., contained the bones and dung of now-extinct Pleistocene megafauna, including elephants and camels (Jennings 1978). The earliest cultural period, from this initial date of 11,000 until about 8000 years B.P., is typically called the Paleoindian period. The Paleoindian era corresponds with the Late Pleistocene, which was a transitional period at the tail end of the ice age accompanied by general warming and rapid deglaciation. The area was much wetter than today. Paleoindian sites are found clustered around what were once large inland lakes and rivers.

Montane conifer stands persisted at much lower elevations than today, and this was a time of maximum effective precipitation for the entire Southwest. This period, however, also saw the arrival of desertscrub species as the prominent elements of the regions' plant communities (Huckell 1996). The Paleoindian period is characterized archaeologically by rather few and scattered finds, most often isolated fluted spear points; some larger single-component sites have been recorded, though there are few in the study area. These peoples were classic Palaeolithic hunters, following mammoths and other large game, though some evidence exists that grinding stones were used towards the end of this period, suggesting at least some reliance on plant foods (Huckell 1996).

The end of the Pleistocene is characterized by further climatic change. Continued warming contributed to the final retreat of continental ice sheets, the extinction of megafauna, and the disappearance of the large inland lakes around which many Paleoindian sites are found. Forests also retreated, their lowest boundaries moving to higher elevations. The monsoonal circuit which brought the record precipitation levels of the previous period ceased, leaving the region hotter and drier. Climatologists contend that 6000 B.P. represents a time of minimal precipitation for the region, and by about 4000 B.P. the region's environmental condition resembled the semi-arid desert-like environment seen today (Huckell 1996). These significant changes heralded the end of the Palaeolithic in the region, and required that very different subsistence strategies be adopted. The second cultural period, between 8000 and 1500 B.P., is broadly termed the Archaic, and is characterized by highly mobile hunter-gatherer groups who relied heavily on plant foods and small game. It is most likely that Archaic life-ways represent an *in situ* adaptation to environmental change (but see Manson 1962). Barrier Canyon Style rock art was produced during this time.

The next major change in the archaeological record occurred around 1500 years B.P., which saw the arrival of domesticates from South America, marking the end of Archaic hunter-gatherer subsistence strategies and the start of a rather brief foray into agriculture. The principle agricultural peoples in the study area were the Fremont, who were significantly more sedentary than their Archaic predecessors. The Fremont, however,

subsisted on a mixed farming/foraging economy, and were in fact significantly less reliant on agriculture than the neighbouring Anasazi, who thrived south of the study area. The appearance of the Fremont marks the first ceramics, significant permanent dwellings in the form of pithouses, and the bow and arrow. Most agree that the Fremont emerged *in situ* out of Archaic populations (e.g. Adovasio 1986; Cole 1990; see Aikens 1972 for discussion). Madsen and Berry (1975, 1978), however, provide evidence for a 2000 year hiatus between Archaic and Fremont populations in the Great Salt Lake region north of the study area, and thereby suggest cultural discontinuity (but see Aikens 1976), but they too acknowledge the probability of continuous occupation within the study area (Madsen and Berry 1975, 398; but see Madsen 1978 for a qualification).

After a brief tenure, the Fremont disappear from the archaeological record around 800 years B.P. Their fate is the topic of considerable debate. It is not clear whether they moved out of the area because the available resources could no longer support their growing numbers, or whether their numbers were reduced from conflict with incoming Numic-speaking tribes from the West. Whichever is the case, the area was subsequently inhabited until contact by the Ute and Paiute peoples, who are archaeologically very distinct from the Fremont (Aikens and Witherspoon 1986; Euler 1964; Hopkins 1965), and are very likely not related in any way to the peoples who lived in the area previously (but see Gunnerson 1962); in fact, there is evidence that the Paiutes 'remember' the Fremont (Pendergast and Meighan 1959; see Stoffle *et al.* 2000 for a discussion of the validity of oral testimony and its temporal range). Ute and Paiute life-ways, while markedly different from those of their immediate predecessors, appear to have been quite similar to those of Archaic peoples (Euler 1964). These groups maintained a mobile, hunting-gathering way of life. Although this often leads to confusion in the archaeological record, ethnographic accounts from these tribes may be helpful in reconstructing Archaic life-ways (Aikens 1978).

This brief account simplifies ten centuries of history, but is sufficient to place the Archaic into a chronological context. What follows is an overview of Archaic-period

archaeological data and, with the help of contact-period ethnography from the Ute and Paiute, a reconstruction of Archaic life-ways.

Southwest Archaeology – A Prelude

A preface is required to a discussion of the archaeology of the Archaic period, as it is host to a number of unusual problems, both environmental and cultural, which result in a relatively poor understanding of the period. The first problems stem from the soil in the region. In the uplands the soil is fine sand, held together by communities of plants which come and go with time, resulting in ever-shifting dunes which move across the bedrock under-layers. If an archaeological component such as a temporary camp was once on the surface of a sand dune, it is very likely that by now that sand has shifted. Lighter elements from the site, such as charcoal from hearths and any other organics, move with the sand; heavier elements such as lithics and other artefacts settle to the bedrock. The artefacts are often subsequently reburied. The same area may then be reused, hundreds or thousands of years later, and the process repeats. This results in what were originally single-component sites becoming irretrievably mixed over time; intact stratigraphy is hard to come by in the desert. Indeed, while hiking in the uplands, I often found that deflated areas, or places where the bedrock is exposed (for now), in many places contain a jumble of lithics and stone tools.

Sometimes it is clear that a deflated site is single-component, but the problem is further compounded by the fact that once deflated, a site can no longer be dated directly, as no organics are present. Occasionally such sites contain diagnostic artefacts such as projectile points which allow for relative dating, but usually they consist of lithics, especially in places which are easily accessible to modern visitors who are glad to pocket a projectile point or other stone tool. These open lithic scatters are of little use to archaeologists, because they can just as well be Paleoindian, Archaic, Fremont or even proto-historic.

Water also disturbs the archaeological record in the region. Surface artefacts exposed in deflated areas, especially those near canyon rims, may be carried down into the canyons

by running water after a summer storm. This is also problematic for sites originally in canyon bottoms, which rarely survive the effects of the regions' flash floods. So while it is common to find artefacts along canyon bottoms, it is never clear whether they came from upstream, perhaps eroded out of a rock shelter, or if they were washed into the canyon from above, maybe originating several kilometres away. Of course, the older an artefact is, the less likely it is to be found in context, which explains why Paleoindian 'sites' consist primarily of isolated spear points.

Stratigraphically-intact Archaic sites are therefore usually found only in protected areas, such as rock shelters and caves, or at the base of cliffs. What remains in these sites depends on the conditions of the place. If the site is exposed to moisture, any organic materials are lost in time. Fortunately some cave sites, like Cowboy Cave mentioned above, have remained dry for thousands of years. It is these sites which yield a wealth of organic material and *in situ* artefacts. Dry caves represent the best possible situation for artefact preservation, but unfortunately they are few in number.

These problems are considerable, but not insurmountable. Quality sites do exist, and with care, can provide an immense amount of information. But this leads to what is in fact the biggest threat to our understanding of Archaic archaeology in the Southwest: archaeologists. Firstly, proper archaeology has not been going on in the region for very long, perhaps no more than 60 years. Prior to this, and continuing even today, a culture of 'pothunters' has left its mark in the form of pits riddling the floors of rock shelters across the study area. There is a large black market for Native American artefacts in the United States and abroad. Not only does this activity remove important objects from their context, but it disturbs the stratigraphy of the few intact sites. This is of course a problem anywhere in the world, but since the Southwest boasts so few diagnostic sites to begin with, it is especially damaging.

Pothunters aside, archaeology in the Southwest is extremely popular. It is, however, deeply biased. Most researchers who chose to study in the region focus exclusively on the Anasazi, Fremont, or other 'late' agricultural populations. These cultures left behind cliff

dwellings, roads, irrigation systems, pottery, and a wealth of other interesting artefacts; the Archaic yielded a lesser variety of material culture. "[A]lthough the Archaic period spans some 70 to 80 percent of the culture history of the North American Southwest, it has certainly not received an equivalent proportion of archaeological attention or interest. Many researchers tend to consider it a long, static prelude to the ceramic-producing Southwestern cultures of the Christian era" (Huckell 1996, 306).

Lastly, of those archaeologists who do study the Archaic, few of them do so by choice. The majority of the land in the study area is managed by either the National Park Service (NPS) or the Bureau of Land Management (BLM). This means that while the land is 'owned' collectively by the people, it is managed by government institutions. While both the NPS and the BLM have archaeologists, the work they do is not proactive. They get word of a proposal for a new road or campground, so they survey the area in question and record what they find. I was permitted to review the site records in several regional BLM offices; I would estimate that 95% of the files, which number in the thousands, describe undiagnostic lithic scatters, while the other 5% name rock art sites or larger intact habitation sites, most of which have been published publicly. The NPS would not even let me see their files, even though I had gone through the official channels and obtained research permits for this study.

This prelude could easily continue – the politics of archaeology in the Southwest, like everywhere, are extremely hindering – but this has been sufficient to draw a picture of the difficulties faced. In the end, we are left with the half-dozen or so dry caves, from which the majority of the data about the Archaic period comes, along with the work of a handful of private researchers and students who have extended this knowledge to the remaining intact sites. What follows is a history and summery of present knowledge of the Archaic.

Archaic Archaeology

The existence of a pre-ceramic culture in the American Southwest has been known since the turn of the century, but it was not until the late 1950s that an understanding of the Archaic began to develop (e.g., Hunt and Turner 1960). By the late 1960s the various

'complexes' and 'traditions' enumerated during the last decade were being connected, and tentative chronologies lead to a more inclusive view of the Archaic (e.g. Irwin-Williams 1967). By the early 1980s the large caves had been excavated, providing a wealth of information (Huckell 1996; Jennings 1978). Two of the four most important caves, Danger Cave (Jennings 1957) and Hogup Cave (Aikens 1970), lie far north of the study area in a rather different geographic setting, while the others, Cowboy Cave (Jennings 1980, Schroedl and Coulam 1994) (Figure 1.4) and Sudden Shelter (Jennings *et al.* 1980), are both found in the within the range of BCS rock art. Interestingly, the excavations of all four caves yielded a remarkably consistent chronology, suggesting a rather cohesive cultural entity existed over an enormous area and throughout the Archaic. These caves are the heart of Archaic archaeology; in fact, "Cowboy Cave is still the central database around which most subsequent work in the area has revolved... [E]vidence for Archaic occupation, particularly in open settings, has otherwise been inferred mostly from projectile point types" (Bungart 1996, 117).

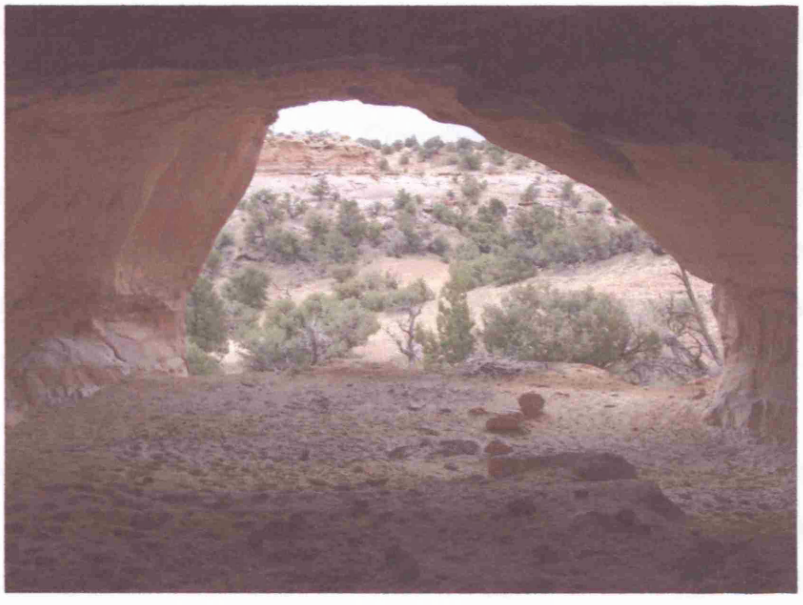

Figure 1.4 - The view from inside Cowboy Cave.

Danger and Hogup caves to the north are both large, south-facing shelters bordering a salt flat near permanent water sources. Each expresses over 8,000 years of cultural history. These caves, and the two within the study area, are remarkable by the fact that they have

remained completely free of moisture for the duration of their use; this combined with the extreme aridity of the area has lead to the preservation of an extraordinary array of organic material. In Danger Cave, for example, 65 plant species were recovered in the form of food remains, cordage, fragments of basketry, and so forth. Forty species of animals were also represented, although the vast majority of animal remains were from rabbits, a primary element in the Archaic diet (Van Ness *et al.* 1996). In fact, apart from some sand and larger stones which had fallen from the cave roofs over the years, every bit of the several metres of fill in each of the northerly caves was cultural, and the vast majority of that was organic. Interestingly, during excavation, both caves exhibited layers of dark ash every so often, suggesting that from time to time a fire got out of control and burned across the surface of the organic fill (Jennings 1978).

Excavations at both Danger and Hogup Caves suggest heavy autumnal use, and a strong reliance on plant foods. The latter also seems to be the case at Cowboy Cave (Figure 1.4), which lies adjacent to large grass stands, about 50 metres from a reliable water source. Excavations at Cowboy Cave produced few bones, again primarily rabbits, but yielded a large number of milling stones, and the remains of several plant foods, primarily pinyon nuts, cactus, and seed-bearing grasses. Coprolite analysis confirmed that all of these resources were part of the Archaic diet (Jennings 1980). Some suggest the cave was a specialized seed-gathering and milling site (Jennings 1979; Tipps and Hewitt 1989). In fact, nearly all of the plant materials recovered from Cowboy Cave are spring and summer species – a strong indication of seasonal use of the cave.

The general view of Archaic subsistence is that it was primarily a gathering culture, relying very heavily on various plant foods, but also on small animals, primarily cottontail, with larger animals being hunted only opportunistically (Plog 1997, Van Ness *et al.* 1996). This is evidenced by the dearth of animal bones and an abundance of grinding stones, which are in fact a primary temporal diagnostic tool (Huckell 1996, 327), as well as data from palynological, macrobotanical, and human coprolite studies (Van Ness *et al.* 1996). Van Ness reminds us, however, that the vast majority of our knowledge about Archaic subsistence is limited to findings in dry caves. If they were indeed of

seasonal use, then our knowledge is biased, representing only part of the seasonal round. Perhaps, as we will explore later, looking at the subsistence strategies of contact-period peoples living in the study area can help to fill in the gaps.

Finding plant remains, or the hearths used to prepare them, means a site can be dated by means of AMS or standard C14 methods. When organics are not present, projectile points are the primary temporal diagnostic artefact, which rather than providing dates, allow a site to be placed into a general chronology (Bungart 1996, Huckell 1996). Sudden Shelter, a dry cave in the southern portion of the study area, was first excavated. It provided a fairly solid point chronology, which was later confirmed by excavations at Cowboy Cave a bit further northwest (Geib 1996). The primary projectile of the Archaic period was the dart, which took a point somewhat larger than a typical arrowhead. These darts were fastened to a detachable fore-shaft, which was then placed over a longer feathered shaft. The shaft would fall to the ground after the dart struck its target, which would then be retrieved, refitted with another dart point, and reused (Flenniken and Wilke 1989). The darts were thrown with the aid of a throwing tool, which extended the arm of the user.

While there exist several morphologically and temporally discrete point types occurring throughout the Archaic, one style, named Elko, can be found spanning the entire period, even after what many researchers refer to as the 'Altithermal abandonment' (discussed below). In Cowboy Cave, for example, Elko points were found in all layers between 8100 and 1400 B.P., which essentially represent the entire Archaic period (Jennings 1980). In Hogup Cave, Elko points continue to be found even in Fremont levels, despite evidence for a 2000 year hiatus between Archaic and Fremont occupation of the site (Madsen and Berry 1975). This suggests a continuity of culture on some level, even thought other temporally discrete point types occur throughout the Archaic (Berry and Berry 1986). Unfortunately analysis of point morphology, even today, is not as refined as archaeologists would like it to be, and there remains considerable debate as to which category a certain set of points belong to (Huckell 1996). Despite these problems,

projectile points, perhaps for economic reasons, are very often used for establishing the relative age of a site, even when an intact and datable hearth is evident (Bungart 1996).

Other diagnostic artefacts from the archaic include woven sandals (Geib 2000) and slab-lined hearths (Bungart 1996). The former occur throughout the Archaic in the study area, varying slightly in make through time; and, because they are organic, the sandals can be directly dated. Slab-lined hearths do not vary morphologically as sandals do; however, they were used almost exclusively during the Archaic, and when found, are a good indication that a site is from that period. Slab-lined hearths are heat-retentive, and were used for roasting seeds, pinyon nuts, and other plant foods (Bungart 1996). These, too, are often datable, and their presence is very much appreciated in intact open-air sites.

Bungart's recent study of slab-lined hearths in the Orange Cliffs region of Canyonlands National Park, in the southern periphery of the study area, is perhaps one of the best recent examinations of open-air Archaic sites (Bungart 1996). Bungart's study was an attempt to provide a site chronology, and to examine Archaic subsistence strategies in the area. His primary research tools were AMS radiocarbon dating and flotation analyses. He chose these tools because while 60% of the aceramic sites he surveyed contained hearths, few had projectile points, so it was not clear where the sites fit chronologically. The AMS dates would provide a solid chronology, and the flotation analysis would provide clues to how the sites were used. Bungart chose to study only 19 of the 100 hearths he surveyed because those 19 were slab-lined, so were very probably of Archaic origin, and were likely used for food preparation. Bungart contends that the study of carbonized macrobotanical and faunal specimens from hearth fill is best way to examine subsistence practices in ephemerally used, open hunter-gatherer sites in the desert.

The results of his analysis were surprising. All 19 hearths dated to between 3200-1500 B.P., clearly within the range of the Archaic, but only five potential subsistence items were identified in whole study: three grass seeds and two pinyon nut fragments. No hearths evidenced food preparation or consumption. There was too much charcoal left in hearths, says Bungart, to suggest poor preservation; the charcoal would not have

withstood the elements to the exclusion of food remains. Bungart concludes, based on the dates he obtained, that the area was not used until the Late Archaic, probably due to shifting biotic zones in response to climatic changes, both of which made the area more suitable for occupation. The most notable change was the invasion of Pinyon trees, though the hearths sampled provided no evidence for pinyon nut processing. Perhaps, Bungart suggests, the nuts were not processed in the hearths in a way that left recognizable remains. He nonetheless maintains his inference that the sites were used for processing pinyon nuts, because the area was evidently not used until the species moved into the region.

Bungart's study brings up two final points of enquiry: paleoclimatic reconstructive studies and examinations of site positioning within the landscape. The former has received much more attention than the latter; however, data on the climatic and environmental conditions of the area during the Archaic remain extremely controversial, despite decades of research. For many years, the model which held sway was a simple one suggesting a climate similar to that found in the region today, with the exception of the Altithermal, a period between 7000 and 4500 B.P., characterized by heightened aridity, greater temperatures, and less precipitation (Antevs 1955). Berry and Berry (1986) drew on Antevs' work to provide what was for a long time the definitive model of Archaic chronology. It suggested a discontinuous occupation of the area: abandonment during drought, and reoccupation during periods of greater moisture. Today, however, this model is considered to be overly simplistic, and it is recognized that the climate during the Archaic varied considerably through time as well as regionally. The most important research in recent years has been on packrat middens, which preserve organic materials incredibly well, and last for thousands of years. Modern reconstructions do posit a period of heightened aridity between 6000 and 4000 B.P., and the term 'Altithermal' is often retained to describe this, though it is still recognized that this oversimplifies and misrepresents the past climate. Finally, after 4000 B.P. the climate probably resembled that of today (Huckell 1996; Plog 1997).

Evidences for this Altithermal period can be found in the archaeological record. Major sites, like Cowboy Cave, appear to have been completely abandoned during the period between 6000 and 4000 B.P. (Geib 1996). For many years it was imagined that this abandonment extended throughout the entire Southwest, and that people simply moved elsewhere during the Altithermal. More recent work suggests this is not true. As more work is done on open-air sites it is being recognized that the area was not abandoned, but instead Archaic peoples used the land differently, probably as an adaptive response resulting in changes to subsistence and settlement patterns. Geib (1996) provides evidence for continuous occupation throughout the Altithermal in the Glen Canyon region, in the southern portion of the study area. He suggests Archaic peoples relocated base camps in response to shifting water sources, and were forced to increase their mobility and adopt larger territories; this decrease in population density makes the archaeological record less visible, and the relocation of base camps to well-watered lowlands would explain the abandonment of major sites like Cowboy Cave. Furthermore, as was mentioned previously, the Elko style of projectile points, as well as some apparently non-utilitarian objects discussed later, appear throughout the Archaic, even after the supposed 'Altithermal abandonment'. Continuity is clearly in place, and it is probable that further research will continue to express this.

Finally, the location of sites within the landscape needs to be explored. Bungart (1996) and Geib (1996) have both demonstrated, at least for the Orange Cliffs and neighbouring Glen Canyon region, that the location of sites within the landscape shifted through time in response to varying resource availability caused by climatic shifts (see also Madsen and Berry 1975 for similar findings north of the study area). Indeed, archaeological evidence suggests expansion, contraction, and shifts in the range of Archaic territories through time, on a scale of centuries. Berry and Berry (1986) suggest these shifts are a result of climatic changes, and that these changes result in different kinds of artefacts appearing in the archaeological record. These different sorts of material culture represent adaptations to new classes of resources encountered during range shifts. They do not, unfortunately, cite examples, and no further research has been done to prove this.

Evidence from the excavations of the large caves in the study area pointed to spring/summer use. This suggests that at times when resources were abundant, groups probably congregated at these larger sites, and that they represent base camps (Tipps and Hewitt 1989). Other times of the year Archaic peoples were very mobile, moving in response to resource availability. During my fieldwork I noted dozens of smaller caves and rock shelters which evidenced intermittent occupation; most of these were south-facing, suggesting winter use. Unfortunately, few of them have even been properly documented, let alone excavated. It is interesting to note that these shelters occur almost exclusively in canyon settings, where the rock art is found. The upland areas are host to literally thousands of lithic scatters, representing many centuries of temporary camps. It was in these areas where plant foods were gathered, and game tracked.

The location of archaeological sites in relation to the BCS rock art sites documented in this study is unfortunately meagre, though some observations can be made, based both on the available literature and on my own observations. Firstly, there are three areas in Canyonlands National Park which are excellent sources for raw lithic materials. The sources near Salt Creek Pocket and the Dolls House area are documented (Tipps and Hewitt 1989); the third, on the rim of Horseshoe Canyon, is not (Gary Cox, pers. comm., 2005). There is BCS rock art within a kilometre of all three of these areas. Unfortunately, information for lithic resources outside of the Canyonlands area is not available; furthermore, while it is likely that Archaic peoples utilized these resources, it is not certain, as lithic sourcing studies have not been published for any of them.

Aside from these, out of 66 BCS rock art sites (62 of which are included in this study), 27% (n=18) are at or within sight of cultural residues in various forms. Half of these 18 sites have been tested or excavated, and are mentioned in the literature; the cultural residues at or near the remaining nine sites have been noted by myself or others, but are not published. Of these 18 sites, 61% (n=11) occur in or immediately adjacent to caves or rock shelters which show evidence of occupation (this amounts to 17% of all sites considered). These sites in rock shelters break down as follows:

- Unpublished sites
  - Centipede Cave (403-3)
    - A few lithics were noted in this large rock shelter which contains BCS rock art. Its location in a heavily-travelled tourist area suggests any diagnostic artefacts have probably been removed. The habitation debris cannot be clearly associated with the Archaic.
  - Yellow Comet Site (407-1)
    - This large alcove is adjacent to a major BCS rock art site. In the alcove can be seen a large amount of charcoal, many lithics, and some ground stone. I also noted a broken projectile point which appeared to be of Archaic origin, though the habitation debris cannot be clearly associated with the Archaic.
  - Moqui Cave (426-1)
    - This cave contains one BCS rock art figure. In a cave immediately adjacent to it are several slab-lined storage cists, which are probably of Fremont origin. Lithics were noted in both caves. The habitation cannot be clearly associated with the Archaic.
  - Dragonfly (426-2)
    - Adjacent to this rock art site is a rock shelter with three slab-lined storage cists, probably of Fremont origin. Some lithics were also noted. This site is probably, though not certainly, a habitation area, and cannot be clearly associated with the Archaic.
  - Happy 2 (612-2)
    - This alcove contains one BCS rock art figure. On the surface of the alcove were noted charcoal, burnt bone, and fire-blackened sandstone. Lithics were abundant. In the wash just below the alcove were noted one piece of ground stone and a biface preform. The ground stone points to Archaic occupation, though the habitation cannot be clearly associated with the Archaic.

- Published sites
    - Rock shelter in Canyonlands National Park (not in study)
        - This rock shelter contains BCS rock art, but the site is not included in this study. Testing revealed unstratified cultural fill and an unlined hearth dated to 3890 – 3420 B.P. (Tipps 1995).
    - White Bird Site (428-1)
        - Excavation at this site, which contains several BCS rock art figures, revealed a multi-component habitation. It was occupied intermittently between 6000 and 900 B.P. (Tipps 1995). I noted charcoal, lithics and ground stone in the backfill of the excavation.
    - Rock shelter in Canyonlands National Park (not in study)
        - This rock shelter contains BCS rock art, but is not included in this study. Testing at this site revealed a diverse artefact scatter but appears to represent a single occupation. A date of 2980-2560 B.P. was obtained from an ash stain at the base of the panel (Tipps 1995).
    - Horseshoe Shelter (616-1)
        - This large alcove in Horseshoe Canyon contains BCS rock art, and several other sites are found within a few kilometres. According to the excavator, "There may have been a nonceramic occupation of the site prior to its occupation by Fremont and/or Mesa Verde Pueblo II-III peoples. On the other hand, there may have been only two occupations, Fremont and Mesa Verde, or even a single mixed component" (Gunnerson 1969, 68). Cowboy Cave is not far from this site.
    - Alcove near Moab (not in study)
        - This small alcove contains some BCS rock art, but is not included in this study. It exhibited evidence of short-term occupation, perhaps during the Late Archaic. Part of a packrat midden covered part of the panel; a pine needle from with the midden dated to

600-340 B.P., which represents a minimum age for the art (Coulam and Schroedl 1997).

- Dubinky (406-2)
  - This large alcove contains several BCS rock art figures. Though heavily looted, excavation revealed lithics, ceramics, and projectile points. Carbon 14 dates (not available) suggest Late Archaic occupation (Alpine Archaeological Consultants, Inc. 2001)

The habitation debris at or near these 11 rock art sites in fact reveals very little. Only four of the six published sites clearly indicate Archaic occupation, though this could have taken place before or after the production of the rock art. The remaining seven sites are all questionable, for the habitation debris could well be much younger than the art.

The remaining seven sites are associated with cultural debris that does not suggest occupation. Three are published, four are not. They break down as follows:

- Unpublished sites
  - Alcove near Green River (not in study)
    - This site contains some BCS rock art, but is not included in this study. National Park employee Gary Cox noted a split-twig figurine on a rock ledge at the back of this alcove (Gary Cox, pers. comm., 2005). Split twig figurines, discussed later in this chapter, are of Archaic origin.
  - Pocket site (428-2)
    - Within a few hundred metres of this rock art site I noted a slab-lined hearth at the base of a cliff, which is probably of Archaic origin.
  - Ascending Sheep (411-1)
    - At and around this uplands site I noted an unusually large number of lithics.

- Junction Site (614-1)
    - This site, which contains a large panel of BCS rock art, is located over a large ledge high above the canyon floor. The ledge contained a very high concentration of lithics, cores, and shatter, suggesting tool-making activities often took place here.

- Published sites
    - Rochester Creek (411-2)
        - This is a multi-component rock art site, which contains some BCS figures. In 1983, looters uncovered a red painted BCS anthropomorph at the base of the main panel, which is entirely pecked. Larry Loendorf of the University of North Dakota excavated a metre-square test pit, and uncovered a piece of ground stone, stained with red ochre, within an ash stain. Charcoal from the stain dated to 2170-1800 B.P. (Dorman 1995). I noted a high concentration of lithics on the promontory where the site is located.
    - Harvest Panel (614-2)
        - Testing at the base of this panel revealed a slab-lined hearth, which was dated to 1930-1680 B.P. (Tipps 1995).
    - Perfect Panel (621-1)
        - In Bungart's study of slab-lined hearths (1996), it was noted that a particular canyon near the Maze contained several Archaic hearths; the site also houses a BCS rock art site.

These seven sites are also inconclusive. Though they are all in the vicinity of cultural debitage, only two of the sites, the alcove with the split-twig figurine and the site in the canyon where Archaic hearths were found, are clearly associated with Archaic remains. The remaining sites show evidence of tool-making or fire-building, though these activities may have taken place at any time.

In summary, while 27% of the 66 rock art sites considered here are in the vicinity of cultural debitage, only 12% (n=8) are associated with material that is clearly of Archaic origin. The split-twig figurine found at one site may indicate ritual use, while the remaining six sites, or 11% of the total number considered, are clearly associated with Archaic-age habitation areas. All of these habitation sites suggest short-term occupation, and the sites may have been utilized for habitation before, during, or after the production of the rock art. The only clear connection between long-term habitation and BCS rock art is the fact that Cowboy Cave is located within the drainage system of Horseshoe Canyon, which is home to at least 20 BCS rock art sites. Horseshoe Canyon is also home to several other caves and alcoves in which I noted habitation debris; further, the canyon is near a major source of raw lithic materials, contains several reliable water sources, and provides an excellent path between the Green River and the Maze District of Canyonlands National Park. In the end, it appears that BCS rock art is *not* by and large a 'domestic' rock art tradition.

This contrasts with other rock art in the American Southwest. In the neighbouring state of Nevada, for example, Quinlan and Woody (2003) report that many of the state's 1037 known rock art sites are accompanied by the material residues of every-day life. Many of these rock art sites were encountered during mundane, daily activities; further, few rock art sites in that area are located in inaccessible areas. BCS rock art sites, in contrast, are located away from habitation areas. The location of BCS rock art sites within the landscape will be explored in detail later in this study; for now, in the context of the present discussion of Archaic-period archaeology, it is safe to conclude that the rock art sites in question are, with a few exceptions, located away from habitation areas.

Reconstructing Archaic Life-Ways

Despite all of the studies outlined here, "Archaic land use patterns are known in broad outline but not in detail" (Huckell 1996, 305). While some large sites like Cowboy Cave exhibit repeated, long-term seasonal occupation, most sites suggest single or intermittent use. Campsites in the uplands number in the thousands. It seems clear from the archaeological record that Archaic peoples were extremely mobile, settling down

occasionally for a seasonal plant harvest at places like Cowboy Cave. Indeed, the environment suggests this was absolutely necessary. First of all, people were tied to water sources, and could never be more than a few kilometres from drink. While there are a handful of perennial streams and rivers which flow through the area, between them lay thousands of square kilometres of seeds, roots, nuts, and game. Following these rivers would not have been practical, as food resources are often located away from these water sources, but springs, seeps, and potholes, found scattered throughout the land, would have provided enough water to support a small group of people. Knowledge of the location and reliability of such water sources would have been necessary.

Based on the excavations from the large dry caves, it is apparent that the Archaic diet consisted of mostly plants, though a wide range of animals were exploited for food, hides, and bone for tools. The remains of large animals recovered from Archaic deposits include bighorn sheep, mule deer, elk, pronghorn antelope, bison, coyote, and bobcat. These remains, however, are greatly outnumbered by small animals, primarily rabbits, but also beaver, porcupine, badger, gopher, and ground squirrel (Jennings 1978). The abundance of grinding stones in Archaic deposits, as well as other tools used to collect and prepare plant foods, suggests a high dependence on plant foodstuffs. Further, data from palynological, macrobotanical, and human coprolite studies demonstrate a high dependence on seed-bearing plants especially (Van Ness *et al.* 1996). Such a diet requires high mobility.

Rain in the region is rare, and when it does fall, it is often so localized, that a few kilometres or even a few hundred metres away, the ground remains dry. This leads to unreliable plant resources, because the chances that rain will fall on a particular plant community at the right moment in its growing cycle are rare; seeds can lay dormant for years or even decades waiting for their moment (Knack 2001). Thus not only did Archaic peoples need to know where to find water, they had to have an incredible knowledge of the growth cycles of specific plants, as well as where to find them (Huckell 1996). This unpredictability of plant resources also inserts a degree of uncertainty into the Archaic diet, as a resource relied upon one season may not be available in the next. "Archaic

hunters and gatherers do not appear to have been able to pick and choose their diet, but rather practiced a diffuse subsistence pattern based upon the exploitation of many floral and faunal species" (Van Ness *et al.* 1996, 125).

Archaeological evidence also suggests the expansion, contraction, and shifts in the range of Archaic people through time, often as a result of climatic changes (Berry and Berry 1986; Bungart 1996; Geib 1996). The high topographical relief of the study area stacks biotic communities, so while some areas exhibit a higher diversity of plant species over shorter horizontal space than others, such areas are also more prone to change when small climate shifts occur (Huckell 1996). This, and the other reasons mentioned above, require mobility and flexibility to be central in all Archaic subsistence activities.

These evidences suggest small group size, perhaps around 10-15 people. Such groups probably followed a general seasonal round, varying their path when necessary. Seasonal aggregation may have taken place to harvest large and stable communities of plant resources. Over-wintering may have taken place in some of the larger rock shelters, though few exhibit signs of long-term occupation, and storage pits for keeping food during the winter are conspicuously absent from Archaic sites (Huckell 1996). All Archaic sites which exhibit extended occupation are found in canyon settings – canyons often provided the easiest path of travel through the land, they afforded shelter from winter storms, and they house most of the rock art sites studied here – while the uplands exhibit temporary camps, probably from people moving through the land hunting and gathering resources.

Such is the extent of what can be surmised from the archaeological record regarding Archaic subsistence strategies and land-use patterns. It is interesting to note, however, that ethnographic accounts of the subsistence strategies and land-use patterns of Southern Paiute peoples, who lived in the study area from about 1000 - 800 B.P. to after contact, match what is known about Archaic life-ways *in almost every detail.* In fact, archaeologists often have a difficult time distinguishing between Archaic and Southern Paiute archaeological sites (Cole 1990). Contact-period ethnographic accounts of

Southern Paiute life-ways therefore provide a good analogy for studying the Archaic (Aikens 1978). It is in that direction that the discussion continues, for perhaps a look at how other hunter-gatherers lived in and conceived of this land will be of use for the present study.

Southern Paiute Life-Ways

The earliest recorded contact between whites and indigenous populations in the study area occurred in 1776 (Crampton 1983), but it was not until nearly a century later that rigorous ethnographic accounts were made. At contact, the study area was occupied by various Southern Paiute tribes. At present, debate continues as to when the Southern Paiutes came into this portion of the Southwest. All, however, agree that the contact period populations represent relatively recent migrations into the area, and that they have no affiliation with Archaic peoples. No continuities are seen in any aspect of the archaeological record, including pottery, basketry, and rock art (see Aikens and Witherspoon 1986 for discussion). While the Southern Paiutes are not ancestrally related to the Archaic peoples who produced BCS rock art, it is useful to examine the life-ways and belief systems of these groups, as they faced many of the same problems as their predecessors did in making a life in this harsh environment.

Southern Paiute peoples practiced a primarily hunter-gatherer lifestyle, with only slight reliance on agriculture. Like the Archaic peoples who lived in the area previously, these peoples relied heavily on plant foods; Knack (2001) records that Southern Paiutes knew how to procure and prepare over 100 species of plant foods. They were very opportunistic in their subsistence strategies, and in times of need, even took to eating insects, lizards, earthworms, tree bark, and other resources (Holt 1992). They relied little on game, and rabbits, the animal which appears most often in Archaic deposits, were the primary source of meat among the Southern Paiutes (Euler 1966). Their seasonal rounds followed the growing seasons of plant resources, moving from one area to the next as different species progressively ripened.

Rice grass and pinyon nuts were the primary plant foods of the Southern Paiutes. Rice grass was harvested in April and May, in great quantities. The seeds were roasted, ground, and used for porridge or bread. This was one of two times the small and usually disparate camp groups of 10-15 individuals congregated; such spring-time seed harvesting hearkens back to what is known about Cowboy Cave. The other time of the year Southern Paiute camp groups came together was in autumn to gather pinyon nuts (Aikens 1978). Though not a reliable food source, when a grove of pinyon trees fruits, it provides more food than any one group could possibly use. Word quickly spread of a good pinyon year, and groups would come together for harvest. The nuts were then stored for the winter. While together harvesting pinyon, the groups also systematically hunted rabbits, which were dried, ground, and stored, often added to pinyon stews (Knack 2001).

Southern Paiute camp groups of 10-15 individuals consisted of two or three families. Each group looked to a headman, an older man who had a lifetime of knowledge about the land, to settle internal disputes, to make decisions regarding where and when to travel, and to act as a spokesperson when communicating with outsiders (Knack 2001). Each group also had a shaman, someone with special concessions from supernatural beings (Holt 1992; Kelly 1939). Because supernatural beings controlled the resources upon which Southern Paiutes relied, shamans accessed the spirit world and communicated with the spirits on behalf of their camp group.

Marriage took place between individuals from different camp groups. Because kinship ties were the primary social bond among Southern Paiutes, marriage brought about connections between distant camp groups. This led to the sharing of new ideas, manufacturing techniques, information about the land, and so forth. Such ties usually extended to physical boundaries, such as the Colorado River, so regional dialects in all material and cultural forms developed (Knack 2001). These regional bands of camp groups connected by kinship ties were named for prominent geographic or ecological features within the 'territory' of each band (Kelly 1964) (geographical/ecological terms were also used to name bands among the neighbouring Northern Paiute, Ute, Commanche, and Shoshone (Wroth 2000)).

Camp groups usually kept to themselves, coming together biannually to harvest particular plant foods. When resources in one area were poor, however, they would simply move to the 'territory' of a relative for the season, or even for a few years. Sharing was expected among and between groups, as it was essential for survival and to the benefit of everyone. Camp groups would also contact one another on occasion to seek out the knowledge of a prominent headsman or shaman for help with a particularly vexing problem (Knack 2001).

This account of Southern Pauite life-ways matches very closely what is known about Archaic life-ways, from what they ate to how they used the land. What cannot be either conformed or denied from the archaeological record is a match between Archaic and Southern Paiute social organization. It is interesting to note, however, that among the Southern Paiute, regional variations in culture appeared within geographical boundaries. Such variations, it will be shown, are also apparent in BCS rock art, suggesting Archaic peoples were organized in a similar way socially.

While this discussion is helpful in understanding how Archaic peoples may have lived, it does not give much insight into other aspects of their culture which would be of help when interpreting rock art found in this land. For this, we look further into Southern Paiute ethnography, and into the beliefs of other Native American groups who lived in similar landscapes.

Paiute, Navaho, and Apache Ritual and Cosmological Beliefs

Unfortunately, while information regarding the subsistence strategies and land use patterns of Southern Paiute groups is readily available, early ethnographers appear to have been less interested in the ritual and cosmological facets of Southern Paiute life. The most prominent study on the topic, a work entitled *Southern Paiute Shamanism* (Kelly 1939), takes the form of a cultural inventory, marking traits present or absent among various Southern Paiute tribes. Kelly's brief study primarily offers information regarding material culture, but it does provide some useful information regarding the relationships between Southern Paiute shamanism and the landscape. Among many Southern Paiute

groups, in addition to the primary shaman, several specialist shamans were present: water shamans, snake shamans, and rock shamans. Water shamans brought rain, or otherwise influenced the weather. Snake shamans derived their power from the rattlesnake, and were called upon to cure bites from the animal. Rock shamans got their power from the earth, and treated falls from cliffs or other rock-related injuries. A fourth common, though not ubiquitous, specialist was the arrow shaman, who treated all other sorts of wounds. Much of this is confirmed in a similar report (Omar 1942), which adds to the list the bear shaman, who was able to transform into a bear and cure sicknesses.

The most interesting aspect of these specialist shamans is that each obtains his or her power from a particular part of the local environment, and in turn is responsible for solving problems or curing ailments which arise from that aspect. The most prominent dangers within the study area are indeed dehydration from lack of water, bites from rattlesnakes, and falls from precipitous cliffs. Southern Paiutes relied upon shamans to deal with these dangers supernaturally. The shamans acted as intermediaries between this world and the spirit world, communicating with supernatural beings on behalf of their group in order to facilitate a reciprocal relationship and maintain order on both a social and a cosmological level (Knack 2001).

A common example of this kind reciprocity on a cosmological level is the practice, found among native peoples worldwide, of the hunter asking permission of his prey before he takes its life. This ensures a reciprocal relationship between humans and animal spirits, as well as with the beings who control the animals. A recent study indicates that a similar kind of reciprocity was also present among the Southern Paiutes regarding the act of making rock art (Stoffle *et al.* 2000). Ethnographies from Utah and the surrounding area offer very little information concerning rock art (Quinlan and Woody 2003); Stoffle and his colleagues therefore relied upon communication with modern representatives of the Paiute Nation for their information. They spoke with Paiutes about a particular rock art site near the Grand Canyon in Arizona, which their informants said was the location of a Ghost Dance ceremony in the late 1800s. The Ghost Dance was a post-contact manifestation – a Native American ceremony, performed by numerous tribes across the

west – which was meant to remove the Euro-American newcomers from the earth, and restore the old ways. The ritual aspect of the Ghost Dance is therefore not culture-specific (or rather landscape-specific) and is not useful here; however, the study offers very interesting information about the making of rock art.

The panel in question is located near the largest source of white mineral pigment in the modern Pauite territory. One informant was glad to have been brought to the site by the authors, because he was able to touch the source of the pigment, and to feel its power. White and red mineral pigments were very important for the Paiutes. They had names for each, and when the incursion of Euro-Americans cut off local supplies of these minerals, the pigments were traded among nations. Red ochre was particularly sacred, and was used only for ceremonial purposes. People often approached pigment sources with caution, and before quarrying from them, a person had to speak to the stone, stating why it was being disturbed, and how the person wished to use the pigment. Only after the pigment agreed to being quarried was it taken. Animal fats were then added to the ground minerals as binders to make paint; similar restrictions applied when a person procured the fat. Even adding the pigment to the rock was associated with behavioural prescriptions – another informant stated that no Native American would ever casually mark a rock, because they are alive and powerful. The possibility that similar or further behavioural prescriptions were present among the producers of BCS rock art will be explored later.

If we look outside the territory of the Southern Paiutes, and at the beliefs of other proto-historic Native American groups who lived in nearby areas with similar landscapes and climates, we can find further information regarding the social and cosmological connections between people and the desert landscape. The Navajo, who inhabit areas to the south-east of the study area, live in an entirely animate universe. For them, the earth is alive with natural forces animated by human-looking 'inner forms'. It is dotted here and there with places of special power, which are similarly alive. Such places are most often "springs, water seeps, river junctions, hilltops, mountaintops, rock arches, Anasazi ruins, water basins, and cliff bases where water pours over the rim" (Kelly and Francis 1992, 43). People visit these places to connect with the power they hold. Such visits are often

accompanied by behavioural prescriptions; for example, the four sacred mountains which surround the traditional Navajo territory may only be climbed in a certain way accompanied by prayer and song (Kelly and Francis 1994, 16-17).

All Navajo sacred places have a story associated with it, telling of how it came to be. The name of the place often refers to the story, and conveys the importance of the place. (Kelly and Francis 1994). Similarly, every ritual a Navajo shaman performs has a story associated with it which tells how the ritual came about; these stories are also emplaced. The Navajo landscape therefore serves a mnemonic function, constantly reminding its inhabitants of the events, legends, and rituals associated with it, thereby serving to validate and maintain their religious systems (Kelly and Francis 1994, 2; McPherson 1992, 73). Many of these stories have a further function as well – an ethical element may be present as a part of the tale, relating a particular social rule and exemplifying the consequences of breaking it. Certain landmarks therefore remind the Navajo of specific, emplaced stories telling them how to live properly in their society (McPherson 1992, 35).

The Apache, cousins to the Navajo, live in a similarly-storied landscape, one which also holds tales describing persons who broke particular social rules (Basso 1996). Such stories always emphasize *where* the event took place. This act of situating the stories in the landscape is particularly effective because Apache place-names are very descriptive, often taking the form of complete sentences, and are known by all members of the society. When a person breaks a rule, the relevant story is told in their presence. A hunting metaphor is applied to this means of maintaining conduct by the Apache – stories are likened to arrows, which people shoot at one another. The person who broke a rule and was thus 'shot' with a story knows immediately that he or she has been caught, and because the stories are emplaced, whenever that person is in the vicinity of the place where the story happened, he or she is reminded of their misaction. Thus the Apache landscape, like that of the Navajo, serves as a mnemonic device by holding standards of social behaviour in the form of emplaced stories.

The common thread connecting all of these various social and cosmological systems among the Southern Paiute, Navajo, and Apache is the landscape in which they live. From the power and purpose of various Paiute shamans to behavioural prescriptions at rock art sites and within storied landscapes, each of these elements is tied to the physicality of the land. These lands are dotted with places, such as springs, mountains, or rock art sites, which are qualitatively different from other areas; these places have been assimilated by various means, and are part of the social and cosmological systems of these peoples. The systems work because people *know* the land. They are familiar with the location and nature of these special places, and with the cultural history associated with them.

The Archaic people also knew their land; we can deduce this by looking at their subsistence strategies in combination with the environment in which they lived. They travelled wide, and their intimate knowledge of where and when to find various resources assured a close connection with the landscape. As this study progresses, it will become clear that BCS rock art sites also represent qualitatively different places, and were part of the social and cosmological systems of these Archaic peoples. This look at the archaeological context of the rock art, and at relevant ethnographic data, has set the stage for an in-depth exploration at these relationships between the producers of BCS rock art and the land in which they lived.

The Art

Rock art research in Utah has been slow to mature. Thousands of rock art sites are hidden in canyons across the state, but the current state of knowledge regarding the art is limited. A primary reason for this stems from accessibility issues – the few paved roads through the region only bring researchers so close to the sites, so overnight backpacking trips are often a necessity. But perhaps the primary reason for the lack of good research is the nature of rock art studies in the United States where rock art is still, for the most part, included in the same category of artefact as projectile points or pottery fragments, and it is studied in a similar manner. Because it is seen to belong to the realm of traditional empirical, 'scientific' archaeology, what can be said about it is limited. Much of the

published material, even today, is limited to descriptions and inventories, and does not dare step over the line into interpretation.

Those researchers who do move outside of scientific methods have been and continue to be primarily avocational rock art 'enthusiasts'. This does not mean no good research has come from this sector, but it does have limits. Most books published about Utah's rock art come from these authors, and take the form of photo essays and guide books (e.g. Barnes 1982; Kelen and Sucec 1996; Slifer 2000). South-east Utah's largest industry is tourism, and rock art is among the state's most profitable resources.

Finally, the political constraints which have limited what traditional archaeological work has been done in the region also apply to the rock art. Most of the land in Utah is managed by the BLM, and much of what remains belongs to any one of several National Parks. In the interest of 'preservation', such authorities do not provide locational information regarding recorded rock art sites in the lands they manage, so researchers have no foundation from which to work; they must, as I did, start from the beginning.

The first major publication about Utah's rock art, Polly Schaafma's *The Rock Art of Utah*, was published in 1971. In this volume, Schaafsma provides a preliminary discussion of the form and age of the various rock art styles present throughout the state, relying on a somewhat limited number of sites. This was followed a decade later by another book about the rock art of the south-western United States (Schaafsma 1980), in which she refined and expanded her original stylistic analyses. A few years later, a two-volume inventory was published by Castleton, a rock art enthusiast and medical doctor by profession (Castleton 1984, 1987). This pair books remains the most complete published inventory of the state's rock art. Castleton's books are almost entirely descriptive, stating the general location and form of several hundred sites; they represent, however, a very small percentage of the state's rock art. Since, similar inventories have been published (Cole 1990; Dorman 1995; Thybony and Hirschman 1994), each following the same trend, focusing heavily on the description and definition of the state's various styles and

traditions. The definition of rock art styles in the area, however, is still in progress, evidenced by recent papers (Dickey and Christensen 2004a, 2004b).

Today, these few books represent the major corpus of work on Utah's rock art. Interpretive works have of course been published, especially in the last decade; these are often papers presented at conferences organized by the Utah Rock Art Research Association (URARA). Such studies tend to be site-specific, rather than focusing on an area or tradition. Interpretive frameworks pursued include studies with an ecological focus, such as information storage (Hartley 1992) and hunting strategies (Matheny *et al.* 2004); shamanism (Schaafsma 1994; Schroedl 1989; Sucec 1992); landscape approaches (Strange 1987; Swartz and Hurlbutt 1994); and ethnographic analogy (Burrow 2002; Young 2004). Some of these have been applied to BCS rock art; these are discussed later.

Barrier Canyon Style Rock Art

An introduction to the formal qualities of Barrier Canyon Style rock art might seem, at this point, overdue; however, as a departure from previous publications on this rock art tradition, I felt it useful to first describe the physical and cultural context of the images. BCS rock art is visually striking, but its forms are not unprecedented in the Southwest. Corollary forms are found in other Archaic-period rock art traditions: further south in the Esplande Style of the Grand Canyon (Dickey and Christensen 2004a, 2004b), and far to the south-east in Pecos River style rock art of southern Texas (Newcomb 1967; Schafer and Zintgraff 1986; Turpin and Zintgraff 1991; Turpin 1994a, 1994b). These two traditions share with BCS rock art a core of painted, abstracted anthropomorphic figures. Morales (1998) suggests this trend continues even further south into Mexico, forming a "pan-Archaic" anthropomorphic rock art tradition. Whatever the connections between BCS rock art imagery and these other styles, BCS images are in many ways unique in the world.

The imagery is dominated by abstracted anthropomorphic figures, depicted face-on, and ranging in size from 10 centimetres to nearly three metres in height (Figure 1.5). These figures are typically comprised of only a head and body, though limbs are depicted on

occasion. The anthropomorphs frequently exhibit bilateral symmetry. There are several variations on the basic body plan, yet there remains a large degree of unity across the style. The anthropomorphic figures are often 'attended' by small animals, mostly snakes and birds, as well as plant-like forms and a wide variety of apparently non-representational geometric figures.

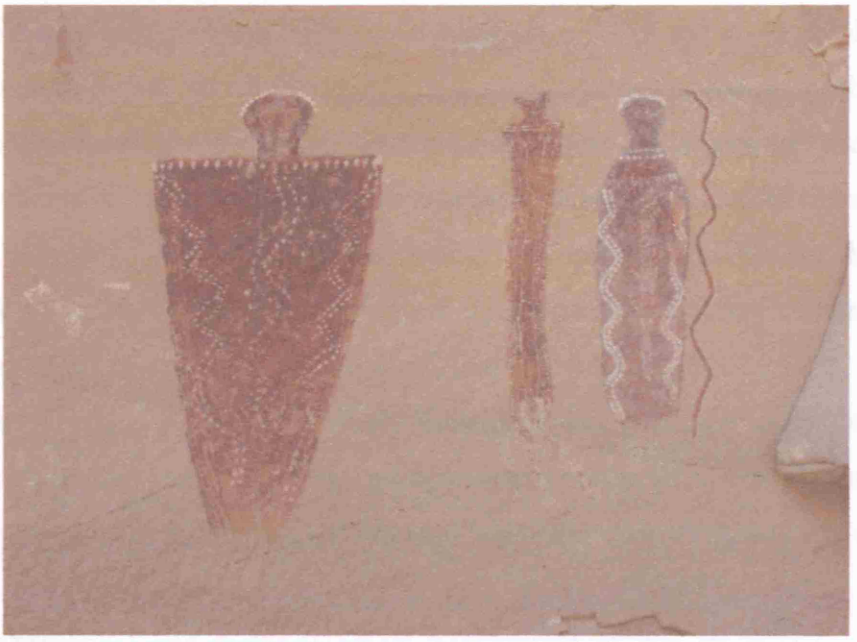

Figure 1.5 - Typical Barrier Canyon Style anthropomorphs (621-1).

Dark or dusky red is by far the most common colour used, followed by white; other colours occur only occasionally, including green, blue, black, and yellow. Pigments are mineral-based; the binder is not known, but is often organic (Tipps 1995). Many of the painted figures have incised, abraded, or pecked details. A small percentage of the figures are entirely pecked, incised, or abraded, containing no pigment whatsoever. The coloured motifs were produced using a great variety of techniques, from applying wet pigment to the rock with fingers or a brush, to rubbing dry pigment or charcoal onto the rock. The images are usually placed onto bare canyon walls, though occasionally the rock face is ground smooth or otherwise altered prior to the placement of the figures.

The anthropomorphic forms are in a few rare instances depicted alone, but usually occur in groups ranging from two to more than 50 figures. These panels are found almost

It is of course important to know that BCS rock art is the product of hunter-gatherers, and without the dates that have been obtained, this assignment would not have been possible. But obsessing with chronology by trying to determine the age of every panel is an expensive and time-consuming endeavour – one which at present is hardly possible with any certainty. Establishing a relative chronology of styles is useful, but given the state of rock art dating techniques and their accuracy, anything beyond this is at present a low priority.

The attribution of BCS rock art to the Archaic period was first made by Schaafsma (1971). She hypothesized that the rock art was made by pre-Fremont hunter-gatherers, between *circa* 2500 and 1500 B.P. Lacking direct dates from paints or associated deposits, Schaafsma's suggestion was based in part on superimpositions of rock art imagery: where superimpositions occur, BCS rock art is always overlain by Fremont and other later styles. She also relied on stylistic comparisons between BCS rock art and a known Archaic style found in the Pecos River region of southern Texas (see Newcomb 1967; Schafer and Zintgraff 1986; Turpin and Zintgraff 1991; Turpin 1994a, 1994b), and on negative evidence based on the lack of bow and arrow depictions in the imagery, which was not introduced into the area until AD 350 (Schaafsma 1990).

Current estimates concerning the age of BCS rock art suggest the tradition is indeed of Archaic age, but that it may have emerged considerably earlier. AMS dates obtained from paint samples as well as dates obtained from deposits thought to correlate with certain rock art panels all cluster between approximately 2900 and 1700 B.P. (Coulam and Schroedl 1997, Tipps 1995; see **Appendix A** for more detailed information). These dates come from a somewhat restricted geographical area, and it is possible that other BCS sites could differ in age. While these dates are in accord with inference, the remarkable similarity between BCS anthropomorphs and unfired clay figurines found throughout the range of BCS art, which have been uncovered in deposits as old as 9430 B.P. (Coulam and Schroedl 1996), suggest to some an earlier date for the rock art style (Cole 1990; Schaafsma 1990; Tipps 1995). What is certain, however, is that the art was produced by nomadic hunter-gatherer populations (but see Manning 1981).

exclusively on vertical or near-vertical stone faces, usually cliff walls deep inside canyons. Sites are typically spread out thinly across the land, but a few canyons are host to several adjacent sites; inter-visibility between sites, however, is extremely uncommon.

The incredible variety in both the imagery and the local setting of BCS rock art sites deserves careful consideration. Moreover, the few common threads which run through every site are significant as well. First, the predominance of anthropomorphic forms, a theme common to nearly all of the dozens of distinct rock art traditions in this corner of the continent, is noteworthy. Second, the vast majority of BCS rock art sites are found deep inside canyons, yet away from the few permanent water courses in the area – this is a theme not shared by many local rock art traditions. Finally – and this is a theme unique to BCS rock art – life-sized anthropomorphic forms, painted in places where the visitor may confront them directly and at eye-level, is a hallmark of this rock art. These three themes come together to create a vaguely human, bodily presence in dozens of special places throughout the study area. These presences can startle, even disturb, an unprepared traveller. The present work attempts to contend with these factors of the rock art.

Before the theoretical and methodological background of this study is introduced, the precise age of the rock art should be discussed. This has been left for the very last as a minor protest to "the obsession with chronology which has characterized much of rock art research" (Hesjedal 1995, 205). The following quote describes this well, if a bit poetically:

> *Sometimes it seems as if the dimensions of chronology connected with the people who once lived, dreamed and wondered overshadow everything else. It is of no importance what they dreamed, how they lived, what they wondered about. The important thing is when they did it, and it seems as if we, as archaeologists, are sometimes more interested in the question when than in questions concerning how and why (Karlsson 2000, 51).*

Archaic Figurine Complexes

The presence of two distinct portable art forms from the Archaic period also deserves mention. These, unfortunately, are poorly documented, and few examples of either type have been found in the study area. Nonetheless, they are an important facet of Archaic culture. These objects are split-twig figurines resembling ungulates, and unfired clay objects, primarily of anthropomorphic form.

Split-twig figurines (Coulam and Schroedl 2004; Schwartz *et al.* 1958) are manufactured from a single long, thin willow branch, split down the centre, which has been bent and folded to create a small representation of an ungulate, most closely resembling a deer or desert bighorn sheep. The vast majority of the 370 figurines on record come from just 16 sites, which are divided evenly between two distinct geographic areas. The first area, where three-fourths of the figurines have been found, is concentrated in and around the northern periphery of the Grand Canyon in Arizona, several hundred kilometres south of the study area. The second concentration is within the distribution area of BCS rock art. These two complexes show slightly different construction methods, but appear to be closely related.

In the Arizona area (Schwartz *et al.* 1958), the figurines are found in rather inaccessible caves and rock shelters, placed in crevices, on ledges, under cairns, or on the ground surface. Some of these caves are totally dark, containing dozens of metres of passages, with entrances up to 200 metres above the canyon floor. The figurines are usually not accompanied by others artefacts, except for bundles of whole and split willow branches, the raw materials for manufacturing figurines. They occur singularly or in number; one particular cave contained nearly 200, the largest cache yet found. In contrast, the figurines from the Utah collection (as well as other scattered finds of similar objects in California, Nevada and Colorado) are almost always found in the middens of habitation sites, and in association with various utilitarian artefacts and other domestic debitage.

Radiocarbon dates on figurines from both areas place them within a time frame of 3100 to 4100 B.P. In Utah, only a few figurines have been recovered from sites with sound

stratigraphic deposition, but artefacts found associated with figurines at other sites consistently confirm these dates. They come from the end of the Archaic, and correspond to all of the direct dates obtained from BCS rock art sites (see **Appendix A**).

No suitable explanation has yet been formulated for the presence of these artefacts in two geographically distinct regions, hundreds of kilometres apart. Schroedl (1977) has suggested the tradition began in Arizona, and then spread north into Utah. Further, he suggests a change in function for the objects: their locations in Arizona suggest to him a magico-religious function, but their presence with other everyday artefacts in Utah point more to domestic use, perhaps as toys. The possibility that the Utah figurines were sacred objects, however, cannot be disregarded, as most of them were found broken or fragmentary, perhaps justifying their presence in middens. While their function is not known, it is clear that they are contemporaneous with BCS rock art, and were very likely produced by the same people. Indeed, one figurine was found propped on a ledge at the back of a small rock shelter containing BCS rock art (Coulam and Schroedl 2004).

The other portable art complex from the study area consists of unfired clay figurines of broadly anthropomorphic form. These are quite small, rarely more than 10 centimetres long, and very closely resemble the anthropomorphic forms depicted in BCS rock art. Like the split-twig figurines, the clay figurines in the study area were recovered from middens, or from within habitation sites in dry caves and rock shelters. Until recently, all clay figurines from the Southwest were thought to be of similar date, being late Archaic or early Formative (agricultural period, corresponding to Fremont in the study area). A recent re-examination of original site reports, however, suggests that a separate tradition existed much earlier (Coulam and Schroedl 1994). Twenty-two whole and partial clay figurines were recovered from Cowboy Cave (incidentally, 20 split-twig figurines were also recovered from this site). These figurines differ slightly from others found in the region, and more closely resemble BCS anthropomorphs. Many are decorated with incisions, resembling the internal body decoration common to many BCS figures, and several have traces of red ochre on their surface. They were recovered from a deep layer, which has been dated between 7600 and 7000 B.P. This date is just after the beginning of

the Archaic. Coulam and Schrodel (1994, 1996) suggest that the uncanny resemblance between these clay figurines and the anthropomorphic figures depicted BCS rock art require that the age of BCS rock art be reconsidered. This is contentious, but many (e.g. Cole 1990, Schaafsma 1990, Tipps 1995) agree.

In addition to split-twig and clay figurines, other interesting objects have been recovered from Archaic deposits in the study area, including incised sandstone pebbles, and quartz crystals covered in red and green ochre (Jennings 1980). Unfortunately these objects are extremely poorly documented, and are most typically only mentioned in site reports as an aside. I do not know if any of these objects survive today, or where they may be held.

Related Works

Barrier Canyon Style rock art has received relatively little attention from scholars. Several early archaeological surveys of the area mention certain panels in passing (e.g. Gunnerson 1957, 1969; Malouf 1935; Morss 1931; Taylor 1957), though the images were in all cases thought to be considerably younger, and were discussed along side later styles, and in association with agricultural populations. A number of more recent general works about the rock art of the area go into more detail, though few do more than to discuss the age, form and distribution of BCS rock art (e.g. Barnes 1982; Castleton 1984, 1987; Coulam and Schroedl 1997; Dorman 1995; Kelen and Sucec 1996; Schaafsma 1971, 1980; Slifer 2000; Thybony and Hirschmann 1984; Tipps 1995; Tipps and Hewitt 1989).

To date, few serious attempts have been made at any interpretation of the imagery. Those with the least support from researchers include arguments for associations with Aztec calendrical systems (Orozco 1996), or with archaeoastronomy (Allee 1995; Warner and Warner 1985). Most often, primarily because of the numinous appearance of its characteristic large anthropomorphs, BCS rock art has been viewed as somehow "religious" (e.g. Burrow 2002; Cole 1990, 2004; Gunnerson 1969; Hedges 1980, 1985, 1987; Kelen and Sucec 1996; Malouf 1935; Morales 1999; Schaafsma 1971, 1980, 1994; Schroedl 1989; Sucec 1992, 1995, 1997; Thybony and Hirschmann 1994; Wellman

1975). Most of these works are primarily descriptive, but some venture to hint at shamanism or ideas of ancestor spirits; only a few of them go into any depth.

Schaafsma (1994) explicitly sets forth an argument that BCS rock art is shamanic, and that its imagery is derived from visual and somatic hallucinations occurring during altered states of consciousness. Although detailed, her analysis relies almost exclusively on simple ethnographic analogies lacking strong relations of relevance (Lewis-Williams 1991), and her conceptualization of shamanism is too general for her analyses to provide information specific to the producers of BCS rock art. Further, Schaafsma analyses the rock art entirely out of context, considering only the images themselves. Her conclusions suggest possible inspirational sources for the form of the images, but do not suggest what the meaning or function of the art might have been.

The analysis by Schroedl (1989) also suggests BCS rock art is related to shamanism. Schroedl believes the production rock art to be a "nonsubsistence activity". His writing is heavily influenced by art historical thought – he places the rock art outside the bounds of society, and his work falls into the 'art for art's sake' school of thought. Schroedl also fails to consider the contexts within which the art was produced.

Cole's recent work (2004) has tremendous potential, but unfortunately stops short just when her paper becomes interesting. She portends to speak of the rock art in terms of such categories as *place and tradition, pigments and color, iconography and social significance, change and renewal,* and *shamanism*; however, in the end Cole discusses these themes as they appear in other rock art traditions around the globe, then only suggests that they might also apply to BCS rock art, without going any further and providing evidences to support her suggestions. Nonetheless, Cole's work provides an excellent description of the style, and does a thorough job placing it within the context of other rock art traditions in the Southwest.

Sucec's work (1992, 1995, 1997) also has potential, by virtue of the fact that he and a colleague have been working for more than a decade producing a photographic inventory

of the BCS tradition. He is likely familiar with more BCS rock art sites than any other individual. While his few published items are intended for a very general audience, and vividly reveal his background as a visual artist rather than an archaeologist, his works provide a refreshing point of view of the tradition.

Another major piece written about this rock art is an unpublished Master's thesis by Burrow (2002). Her work compares certain very specific iconic elements within the BCS tradition to equally specific elements of the Hopi Snake Dance. Burrow is looking not for direct cultural continuity between Archaic hunter-gatherers and the far-removed Hopi, but rather for some generally shared beliefs between Archaic and historic peoples. She concludes that BCS imagery is analogous to Hopi ritual, but fails to explain why. Unfortunately, it seems her heavy reliance on direct ethnographic analogy clouded the potential benefit of her work.

Finally there is my own work: a master's thesis submitted to the University of Southampton (Firnhaber 2001). This too took the form of a primarily shamanic interpretation of BCS rock art. Although I made an effort to substantiate my claims with neurophysiological evidence, in retrospect I feel my analysis was general and formulaic. I, like those before me, was enchanted by the visual primacy of rock art, and failed to consider other relationships between the viewer and the art. The shamanic interpretation does have potential if care is taken to contextualize one's interpretations within the cultural system which produced the art; otherwise, such analyses reveal only a potential inspirational source for the formal aspects of the images, but says nothing of their meanings.

Rock art is more than a set of images which are passively observed, and the images are more than containers for meaning. A rock art site is a place to which a person travels with the intent of engaging with the images in their physical context. Recent advancements in the study of artworks in general and rock art specifically take this into consideration, and will allow for a more informed study of BCS rock art.

Part 2 - Theory and Methods

Above us, behemoth formations were blending into the sky and our flickering shadows hit the wall. We came to a hollowed bend where the creek had undercut the canyon, leaving a smooth, clean face leaning over the sandy wash. I lifted the candle, and in a warm orange light appeared round phantom eyes, deep red, filling a featureless, stone face. Our eyes adjusted, picking up the detail of vertical stripes running the length of a painted torso. It stood in a line, accompanied by more figures, narrow and tall, tapering like waterfalls, some into stubby legs, others into levitation. There were rows of them, life-sized. They were intricate and deeply colored, like residual stains of a vision. Smaller, precise figures were inter-spaced as if they had been thrown at the wall from a distance and the paint had congealed into shapes. Images came slowly, as they should. We mumbled incoherently and breathed quietly as we moved from one to the next (Childs 2001, 99-100).

The majority of the figures are painted, but there are a few petroglyphs as well. Most are heroic-sized anthropomorphs with long slender trunks and bucket-shaped heads. Two figures with erect horns on their headdresses have short, slender legs; one is armless, the other has single line arms and is holding what appears to be a snake. On either side of one anthropomorph are small paired figures, possibly insects. Several figures are decorated with vertical lines which extend to the waist or the length of the trunk (Castleton 1987, 290).

The first passage above is an excerpt from a naturalist's book, which recounts his explorations of Canyonlands National Park. It describes a night-time encounter with the Harvest Scene, one of the largest known BCS sites. The description is vivid and poetic, and works very well to encapsulate the incredible visual impact afforded by BCS rock art panels. The passage also epitomizes the popular response to this tradition. Indeed, astute businessmen in the tourist hub of Moab have caught on to the public's appreciation of this rock art style; there, you can find shirts, caps, and coffee mugs adorned with

appropriated BCS rock art images. Similar reconstructions decorate restaurant walls and hotel signs, luring tourists with their visual appeal. Even though only a few BCS sites are well-known publicly, most visitors to the area are enchanted by the rock art.

The second passage, which stands in stark contrast to the first, is a description of the same site taken from a partial inventory of Utah's rock art. While it contains a few colourful words, the language is for the most part straightforward and descriptive. As a 'hard science', archaeology strives to be objective, and only the second narrative would be admissible in a site report. Yet the first passage above contains something which the second lacks – it conveys the very visceral nature of rock art. This site, and all others, played a central role in the social and ritual lives of the people who produced and consumed it. The site described here does not exist in a sterile, academic space, but rather deep inside the Maze District of Canyonlands National Park – one of the most remote and inaccessible places in the entire country. The handful of hearty travellers who make it there each year inevitably endure hardships to reach the panel, much as I did during a week-long backpacking trip to the site. My reaction was comparable to that of the naturalist: when I finally reached the panel; I spent well over an hour walking up and down the decorated cliff face, trying to take it all in. The rock art exists *out there*, in the field, and only truly maintains its efficacy when it is visited, explored, *experienced.*

To ask why archaeology does not pay attention to this visceral, experiential aspect of rock art would not be fruitful, as the answer clearly lies in the discipline's empirical lean. At the same time, the information contained in the first passage is overshadowed by metaphor and poetic imagery, and certainly lacks the rigour which ought to be present in academic writing. Both passages are positive in their own right, but both are equally lacking. Neither approach is taken here. Rather, an effort is made to compile a new approach to rock art, one which combines *both* attitudes illustrated by the above passages. It explores the topic of rock art in such a way that allows for both scientific rigour *and* visceral description to enter the equation. This approach is an extension of Tilley's phenomenological approach to emplaced cultural artefacts (Tilley 1994); it might be called an *archaeology and anthropology of experience.*

This approach is archaeological by virtue of the fact that its subject, like that of normative archaeological endeavours, is the *artefact* – the material residue of past human action. The similarities, however, end there. Archaeologists typically work by examining artefacts, and deducing from them the actions which were responsible for their being. From there, archaeologists can consider the possible motivations behind those actions, thereby bringing people, or agents, into the equation. In contrast, the approach taken here, while it also begins with cultural artefacts, works by allowing the researcher to stand in for past agents, and to use his or her experiences of being at a rock art site to help understand how people in the past may have experienced the site. It thereby humanizes the past in a way traditional archaeology can never do; after all, rock art is nothing like a lithic fragment or a charred animal bone. It is in this sense that the approach introduced here is anthropological – it allows for the inclusion of social agency as a central factor when considering the role and meaning of rock art in the past. The theoretical foundations of this approach are as broad as its implications.

Theoretical Foundations

The approach taken herein to emplaced cultural artefacts is grounded in theory. In order to examine past experiences as they relate to rock art sites, several aspects of the rock art and its surroundings need to be explored. First, by considering the locations of the sites in the larger landscape, we can discover how individual sites relate to each other and to the landscape as a whole. For this, we will draw from recent works on the archaeology of landscape and rock art. Second, the physicality of the sites on a very local scale must be examined; this allows for a consideration of how the visitor moves in and around the place while at the site. Here we benefit from research on space and place, and also draw from works on the nature of sacred space as well as writings on architectural analysis. Third, Tilley's phenomenological approach to emplaced cultural artefacts, based upon Merleau-Ponty's philosophy of perception, allows us to more closely examine the relationships between the human subject and the physicality of the rock art sites.

These topics allow us to consider how the places in which rock art is found are experienced, but the rock art itself must be contended with as well. For this, Gell's work

on the agentive properties of art proves invaluable. His anthropology of art allows us to consider the social roles of art objects, and to explore the effects of being in the presence of the life-sized anthropomorphic motifs which dominate this tradition. Finally, by considering recent works on the nature of metaphor, the meanings of both the rock art and the experiences of visiting the rock art sites may be explored. The major works utilized for each of these theoretical and methodological positions are outlined here.

Landscape

The archaeology and anthropology of landscape has, during the past decade, grown to include non-traditional notions of the term 'landscape': no longer does it refer only to the physicality of the land. Traditional archaeological studies of landscapes include site catchment analyses, surveys of travel patterns and resource procurement costs, even basic site maps. These sorts of studies all consider the landscape to be an inert backdrop to daily life, something always already present, taken for granted, and to-be-endured. Many recent works reverse this thesis, arguing that the landscapes in which people make their lives are meaningful networks of humanized places and paths, which are actively integrated into every facet of the social, ritual, and cosmological milieu. The rock art sites explored here are emplaced, and exist in their original physical contexts. If these contexts are indeed meaningful, as I suspect they are, they must be understood on several levels in order for the relationships between the people, the land, and the rock art to be understood. Discussed here are several recent works on the archaeology of landscape. Fixed artefacts are considered in terms of natural landscapes, social landscapes, ritual landscapes, and finally mindscapes, or non-physical landscapes.

It must be said at the outset that these categories are only loosely defined. Their boundaries are permeable, and they are not mutually exclusive. However, the exploration of each type of landscape is accompanied by different methodologies, and each has its own problems. These, too, are explored in the following discussion.

Natural Landscapes

The archaeology of natural landscapes takes as its subject the land physically unaltered by human activity. Most frequently, the items considered by this approach are exceptional natural features which stand out from the surrounding land in some way. Waterfalls, caves, unusual rock formations, and mountaintops are prime examples, though more mundane items such as a single tree, or a specific rock or river bend may also be significant. These portions of the landscape are places which came to hold meaning for people in the past. Because these places were incorporated into the social and ritual lives of those who used them, they may today be considered artefacts of sorts; they are a part of the archaeological record. The first and most difficult task the archaeologist faces when studying these natural places is identifying them.

The simplest way to identify such places is to be told of them by people who still live there, and who still hold a connection to the land. The natural landscape of Australia is a well-known and highly document case of this. From Ayers rock down to a local waterhole, nearly every recognizable piece of the natural landscape has significance to those who live(d) there; each is mythologized, having been created by ancestor beings during their Dreamtime activities. Another, early example comes from the writings of the Columbian anthropologist Gerardo Reichel-Dolmatoff (1967, 1971), whose work with the Tukano is only now becoming widely discussed. The Colombian Amazon is a monotonous landscape, which more often than not looks the same wherever one stands. There are, however, two types of natural features that break this uniformity: rocky hills, which rise up above the forest canopy and can be seen from long distances, and the great rivers which have cut meandering, empty swaths through the forest. Unsurprisingly, both are significant to the Tukano who make their home in the land. In Tukano cosmology, the hills and rivers are the homes of *Waí-maxsë*, the Master of Animals and Fishes. The hills are conceived metaphorically as large houses, or sometimes uteruses, where the Master of Animals gestates game. Rapids in the great rivers are similarly conceived; it is here that *Waí-maxsë* creates fish for the Tukano. This example will be considered more later, for these places are also part of a ritual landscape; however, in terms of the present category,

they represent unusual places within the natural landscape which were singled out by those who live in it, and were given special significance.

Without extant populations to tell us that particular mountains or rivers are significant places, we must rely on other methods. In fact, the recognition of important places in the natural landscape often requires a sort of lateral thinking. The problem archaeologists encounter when attempting to identify, and perhaps interpret, the natural landscape involves a certain form of ambiguity. A line is often drawn between places which are wholly natural, and places which are constructed by humans. This line, however, is never clear, as Scarre (2002) attests to. He discusses a number of stone monuments in France, documented in the late 1800s by Philippe Bézier. After re-examining these sites, Scarre suspects several of the 'megaliths' Bézier recorded may, in fact, be natural rock outcrops. In a related article, Tilley and Bennett (2001) address stone monuments in West Penwith, Cornwall. They also discuss several natural rock formations in the region, many of which resemble what are more clearly human-constructed dolmens. The authors go on to propose that the monuments are in fact attempts to replicate the natural rock formations, which they believe held metaphorical significance to the monument builders. In these examples, the line between natural places and artificial places is not easily drawn: if both the rock formations and the megaliths were culturally significant, then are the unaltered formations natural, and the dolmens not?

In the end, it is the very distinction between natural places and manmade places which is brought into question. Traditionally, archaeologists only concern themselves only with those places which are most clearly the products of human agency. Taçon (2002, 122), however, suggests that "there are no truly 'natural' landscapes" left in the world, that "[f]or hundreds of thousands of years, humans have explored, charted, categorized, settled, harvested, named, and defined every corner, nook, and cranny of the globe." There is truth in this statement, and only by becoming more creative and 'lateral' in their endeavours can archaeologists begin to discover the significances which past peoples placed on the 'natural' landscape.

The identification of natural places onto which cultural significances have been placed is not an end in itself; indeed, none of the above authors have treated it as such. Rather, once a natural place becomes humanized, it can be regarded as part of a social, ritual, symbolic or other landscape. In a sense, the category of natural places is spurious; however, it has been important to address it here, because much of landscape archaeology fails to consider portions of the landscape which are not obviously humanized.

Social Landscapes

The archaeology of social landscapes involves the exploration of ways in which the land was used to social ends. The identification of social landscapes requires very different methods than those used in exploring natural landscapes. The examples discussed here all consider rock art, which is permanently emplaced in the physical landscape, to be an ideal starting place for the discovery of social landscapes. Most of the works are recent publications by Bradley, though a related article by Purcell is also considered. Both authors appear to have been heavily influenced by the work of Tim Ingold (1986), whose discussion of how different peoples viewed the land in which they lived provides us with a starting point for discussion.

The portion of Ingold's research which is of most relevance here is his consideration of the differences in the ways in which mobile hunter-gather societies and sedentary agricultural societies conceptualize territory. Ingold's model suggests that hunter-gatherers operate with a zero- or one-dimensional conception of space, based upon places and paths. The land 'owned' by hunter-gatherers is contained within those places and paths. Territories are based on those places and paths, but only loosely. Agricultural societies, conversely, operate with a two-dimensional conception of space, based primarily on surface area. Boundaries here are clear-cut, and land becomes tenure. While Ingold never makes an implicit connection between his model and rock art, he claims at the outset that "territorial behaviour is basically a mode of communication" (Ingold 1986, 133). Hence rock art, in part a form of visual communication, might be in some ways related to territoriality.

Purcell (2002) discusses a rock art tradition in south-west Ireland, which is probably Late Neolithic in date. Purcell's aim in considering the relationship between the rock art and the physical landscape is to deduce "the operational rules which governed the production of rock-art in the study area" (Purcell 2002, 74); in other words, to examine why certain surfaces were chosen over others for the production of rock art. To do so, Purcell considered two factors: the accessibility of the sites, and their individual prospects, or the extent of the view from the sites. His work showed a distinct dichotomy: some sites are found in open areas, probably along route-ways through the landscape, while others were produced in rather inaccessible areas, overlooking those route-ways. No apparent differences were noted in the content of these two categories of sites; both displayed the same motifs in similar frequencies. Purcell concludes that the choice of location directly reflects the artists' desired audience. Those sites along route-ways were meant to be seen by a large number of people, while those less accessible were reserved for a more specific group of viewers. Thus, from his investigation of the relationships between the positioning of rock art sites and the physicality of the landscape in which they are imbedded, Purcell suggests the presence of a social landscape: "[a]ccessibility to carved rocks reflects social divisions among the society that carved them" (Purcell 2002, 90).

Much of Bradley's recent work (1997, 2000; Bradley *et al.* 1993, 1994, 1995) begins with similar assumptions and reaches similar conclusions, though he more explicitly addresses Ingold's concerns regarding places and paths in hunter-gatherer conceptions of landscape. Bradley proposes (1997) that hunter-gatherer rock art may be a way for groups to communicate without being together. His work with Galician and Scottish rock art uncovered dichotomies similar to that which Purcell found in Irish rock art: some carvings are located along clear paths, while others are found in inaccessible areas overlooking those paths. Bradley added a second, though similar dichotomy to this: rock art sites located within or near habitation sites versus those found at some distance from them. A major difference between Bradley's and Purcell's findings, however, is that in the rock art of Galicia and Scotland, there is always a clear separation in the graphical content of each site-type, thus the information contained in a site varies according to its position in the landscape. Bradley concludes, for example, that large sites along well-

travelled routes will provide a wider range of information than rock art found at a habitation site, or away from well-travelled paths, because sites along paths would be seen by a larger and more varied audience. His arguments and conclusions are more complex than this discussion suggests; however, a similar theme permeates them all. Bradley believes rock art to exist exclusively as a form of visual communication. Therefore, if certain sites are more likely to be encountered than others, they were meant for a more general audience than those sites which are relatively less accessible.

Purcell and Bradley both assume that rock art exists primarily to communicate to other people; they are enchanted by the visual primacy of the medium, and consider visual communication at the expense of other modes of engagement. Alves (2002, 51) suggests the works of Bradley and his followers "incite a view from above, located at a considerable distance from questions related to the formal 'act' upon the rock-face"; indeed, these authors seem to consider the producers of rock art to have been hypothetical people driven by controlling socio-economic pressures, whose response is a hyper-rational one of calculated efficiency (Arsenault 2004, 69). These authors nonetheless provide an excellent starting point for the consideration of social landscapes. Such an endeavour, these authors show, must involve a consideration of the possibility that the land, full of mountains and valleys, rock art sites and habitation areas, might have been segmented unequally, such that not all areas were accessible to all social groups. These social distinctions may be based on gender, class, age, or any number of categories. By recognizing rock art sites as part of a larger social system, their placement within the land can be better understood.

Ritual Landscapes

Let us return to the work of Reichel-Dolmatoff to introduce the study of ritual landscapes. His description of the metaphorical significances attached to Amazonian hills and rivers by the Tukano provided an example of how a natural landscape may become part of the archaeological record. It is interesting, perhaps even unsurprising, to learn that these two sorts of places provide the primary locations chosen by the Tukano for the production of rock art. In a brief study published in 1967, Reichel-Dolmatoff reveals that

the hills and river rapids, homes of *Waí-maxsë*, were visited only by shamans, and only to produce rock art. The images produced at these places consist of animals and geometric motifs. The animals represent game which the shaman, in the ritualized painting session, is requesting of *Waí-maxsë*. The geometric motifs are symbols which, according to the Tukano, represent notions of fecundity and fertility. These places are reserved for ritual activity, and are avoided by those not involved, as they are too powerful and dangerous for the uninitiated. Reichel-Dolmatoff's discussion provides an example of how a landscape may be ritualized. Ritual landscapes are those portions of the natural landscape which are set aside for specific, non-secular purposes.

Lee (2002) provides another example. She examines the rock art of Hawai'i, noticing that most of the rock art on the island was carved on surfaces seemingly unsuitable for the production of rock art. Large, smooth rock faces were very often ignored; rock art was instead produced on rocks associated with openings in the earth – caves, cracks and fissures, or collapsed lava tubes – regardless of the quality of the surface. Lee suggests this reflects a ritualization of the landscape. By comparing the graphical content of the rock art with early accounts of native Hawai'ian world-views, she concludes that the motifs are most often images of supernatural power. She suggests it is not surprising that rock art is found at places where the earth opens up, and that such places were ritually significant. Further, Lee contends that by carving images which represent the supernatural power that made the places significant to begin with, their power was heightened. Thus she provides explanation for the content of the imagery, the location of the rock art sites, and an explanation of why the rock art is located most frequently on surfaces not well suited to the production of rock art. These disparate lines of evidence combine to provide a possible image of an ancient ritual landscape.

In this example from Hawai'i, rock art was made at significant places in the physical landscape in order to augment the power of those places. Another case, already discussed above, describes an instance in which significant places were replicated. Tilley and Bennett (2001) explore the possibility that the stone constructions in West Penwith, which resemble natural rock formations, may in fact *replicate* those rock formations.

These natural formations, they hypothesize, were conceived as being constructed by ancestors, and held possible metaphorical and ritual significance, dealing with conceptions of ancestral powers. The constructed dolmens, reproducing the natural, 'ancestral' formations, were meant to "enhance, emphasize, and make reference to features that the ancestors had themselves created" (Tilley and Bennett 2001, 360). By reproducing the natural outcrops, the ritual landscape was appropriated, augmented, and in a way controlled.

One final example comes out of southern Africa. Kinahan (1999), in a provocative discussion of a particular site known as the Rainman Shelter, attempts to recreate a ritual landscape based on several elements. The site is located in a small shelter beneath a granite massif. Such formations, because of the way they capture heat and manipulate air currents, tend to 'catch' rain clouds above them, and act as repositories for the falling water. The shelter which contains the paintings is relatively small, with room enough for one or two people to move about comfortably. The main frieze depicts a rain animal, upon which shamans call to bring rain, but the panel is dominated by the depiction of what at first appears to represent an elephant hunt. Kinahan, however, suggests the scene to be too unrealistic to be interpreted literally. Rather, he gives several reasons to associate the elephants with the rain animal, and therefore with rainfall. Based on the apparent age of the paintings, and the presence of iron artefacts associated with the art, Kinahan suggests the site represents the work of a single ritual specialist, who used the shelter for a rain-making ritual at the request of a neighbouring pastoral community. The site was chosen because of the association between the granite massif and rainfall. While not definitive, Kinahan's interpretation of the site brings together archaeological, ecological and topographical evidences, as well as considering animal ethology, animal metaphors, and what is known about regional belief structures, to provide an explanation for the content and location of the rock art site in a ritualized landscape.

In the end, Kinahan suggests some rock art sites "define a landscape mediated by ritual activity" (Kinahan 1999, 326). Reconstructing ritual landscapes requires several strands of evidence to be brought together. What is becoming clear, especially from the last

example, is that the different conceptions of 'landscape' discussed thus far are all closely related. Natural landscapes single out places in the physical landscape which had special meanings. Social landscapes highlight the ways in which people utilized those places. Similarly, ritual landscapes define the same places in terms of specific sorts of activities. Kinahan considered each of these, as well as phenomenological observations concerning the biotic and climatic landscapes involved. What is now emerging is a notion of 'landscape' which is not singular but inclusive, and which is based only in small part on topography. One final category is to be discussed before concluding.

Mindscapes

The term 'mindscape' was coined to describe non-physical, primarily cognitive 'landscapes' superimposed onto places, primarily rock art sites (Ouzman 1998). It began as an attempt to sidestep the visual primacy of rock art, and to think of rock art images and the sites they inhabit in different ways. The term has not gained widespread usage in the rock art community, but it is particularly apt for the present discussion. It is a broad category; the few examples provided here will not do it justice. Nonetheless, it is important to consider mindscapes when studying the relationships between archaeological sites and their landscapes.

Ouzman's most recent publication (2001) is concerned with non-representational marks associated with some rock engravings in southern Africa. The marks he investigates fall into three categories: hammer marks, rubbed areas, and flaked spots. Each represents a different physical engagement with the engraved rock, and each to different ends. The hammer marks, he argues, are the by-product of percussive activity. Most rocks which exhibit these marks have peculiar resounding qualities, due to their mineral composition. Ouzman cites several instances from southern African ethnography which testify to the importance of percussive sound in ritual activity; he believes the hammer marks to have been made during ritual activities at the sites, in which physical engagement with the engraved rock and the sounds produced by it were important. Rubbed areas at engraved sites occur only on specific types of engraving, most often elands or other large, spiritually important animals. This different sort of physical engagement with the

engravings, Ouzman suggests, was an attempt to retrieve spiritual potency from the engravings. Similarly, flaked areas at some sites might be the result of individuals taking away pieces of the engraved stones, in order to possess a part of the potent rock. Ouzman concludes by calling all of these sites heirophanies, and by suggesting that these evidences of physical engagement with spiritually potent places allow us to construct a part of the mindscape of the rock art sites.

The correlation between sound and rock art has been further discussed by Waller (1999, 2000, 2002). His systematic and quantitative studies of the acoustic properties of rock art sites have suggested that in many areas of the world, places may have been chosen for the production of rock art based on their ability to produce echoes. His most controlled study, which took place in Horseshoe Canyon (home to numerous Barrier Canyon Style rock art sites), included as a control studies of echoes at numerous places within the canyon which contained no rock art. Waller's results indicated that the painted BCS sites produced the strongest echoes. Interestingly, one particular spot chosen as part of his control study did produce quite strong echoes; later investigation revealed a single painted figure previously unrecorded at that very spot. Waller is reluctant to theorize the significance of his findings, though this study suggests the sites in Horseshoe Canyon were very probably places of communal ritual, and echoes may well have played an important part in such activities.

A final example of an attempt to reconstruct past mindscapes involves the reconstruction of how time was conceived based on a detailed analysis of Alpine rock art imagery (Frachetti and Chippendale 2002). The authors extract several concepts of time based on their interpretation of motifs found on a number of engraved stelae. Sun imagery reflects a cyclic, cosmological time; human and weapon motifs reflect individual and ancestral time; and animal and agricultural motifs reflect social time. Further, the stelae themselves are associated with funerary practices, and reflect ancestral time. Finally, the re-use of stelae evidenced by superimposed imagery reflects a linear, historical time. Each of these different temporal patterns has their own significances, and all are evidenced in the same rock art sites. These temporal understandings, the authors argue, are apparent not only through the imagery but can also be understood spatially. The relatively and contextually

conceived space within the panel serves to depict the time understandings inherent in the imagery; for example, a sun image seen out of context conveys a different sense of time than one depicted above plough, field, and human motifs. Self-same spatiality, in the sense of superimposed images, creates a sense of historical time. And the spatiality of the stelae and the surrounding landscape, especially with regards to how the stelae have been re-positioned and re-used, conveys yet another sense of time. Fraachetti and Chippendale's unique interpretation of this imagery provides an excellent example of the ways in which mindscapes can become part of landscape studies in archaeology.

Every study considered here represents an attempt to understand how a particular group of emplaced artefacts relates to the landscape. The places explored by these researchers have all been humanized on multiple levels: socially, ritually, and cognitively. Even the 'natural' places discussed in the first section are in truth places modified by human agency. Other facets of landscape were not explored in this discussion, but also deserve consideration, for example gendered or embodied landscapes (Yates 1993; Díaz-Andreu 2002; Tilley 1999), cosmological landscapes (*e.g.* Reichel-Dolmatoff 1979), and political landscapes (Dowson 1994a, 1994b, 1998; Bender 1989, 2001).

All of these studies provide methods and conceptual foundations for exploring the wider setting of BCS rock art. In fact, virtually every idea presented here will be used in the following pages. In discovering the motives of prehistoric peoples which governed the placement of rock art sites within these landscapes, we will be able to understand the ways in which the production of a rock art site affected how ancient peoples lived in and understood the land. Landscapes in this way are simultaneously constituted and constituting. The production of a rock art site embellished an already meaningful landscape, but at the same time created something new. Rock art sites are humanized places which were actively utilized. Understanding why they exist where they do brings us a step closer to recognizing how rock art sites were engaged with physically, by placing sites within a broader context of land-use patterns and social and ritual networks, and by building an understanding of what sorts of places were important to the artists. However, it is also necessary to examine these sites on a smaller scale, to understand the specific nature of the places singled out by these evaluations.

Space and Place

A problem with a number of archaeological and anthropological explorations of landscape is their scale. Many treatises are so concerned with discovering the rules governing large-scale site placement that they neglect the local topography of individual sites. While Tilley's phenomenological approach to emplaced cultural artefacts (discussed below) provides an excellent strategy for small-scale topographic investigations, it is best used as a tool for combining the various theoretical approaches discussed here and applying them practically to the rock art. A foundational knowledge of the theoretical exploration of space and place is prerequisite, therefore a few other items will also be considered. Some anthropological papers on space and place are discussed, followed by an exploration of some works on sacred space; finally, some theoretical considerations regarding the nature of architectural space are explored.

Space Versus Place

Thus far in the present work, a collection of rock art images and its physical surroundings has been referred to as a rock art 'site'; this term is standard within the discipline, and will continue to be used herein. The term was likely borrowed from archaeology, where an archaeological 'site' does not refer to the location of an excavation as it existed in the past, in a humanized space populated by agents, but instead refers to the location as it exists in the present, in an abstract and academic space, delimited by a grid of string and divided into vertical excavation layers.

> *A site is something discrete and separate that can be objectively studied and photographed; it is the locus where some activity or event once occurred that is no longer occurring: it exists in the past and we, as observers, are separate from it – it is the archaeological frame of reference (Fitch 1988, 62).*

This stands in contradistinction to the notion of 'place'. If 'site' is the archaeological frame of reference, 'place' is its anthropological counterpart:

> *Unlike a site, a place includes the observer as well, so that the configuration of a rock art place - its series of contexts that expand like concentric circles around a center - expands a notch further to include not only the surrounding land and time but also me, you, us (Fitch 1988, 62).*

Fitch advocates replacing the term 'rock art site' with the more-inclusive 'rock art place'; while attractive, this is not practical. Nonetheless the distinction he draws brings up some interesting issues. The two frames he refers to, an archaeological frame and an anthropological frame, or the respective 'rock art site' and 'rock art place', obviously refer to the same physical space, but they refer to different *kinds* of space. The former is an abstract space, while the latter is a human space (Tilley 1997, 8). The difference here is qualitative, but rather than referring to physical qualities of the locale, categories of space refer to qualities of *being*. A spatial category is manifest through the manner in which a person is being-in-the-world *in* the space; or, more simply, the way the person is being-towards-the-world. We can therefore speak of an archaeological space, a living space, a personal space, or even a sacred space. These spatial categories, or the manner in which a person is being-towards-the-world, in fact become the meaning of a *place*. A place, in this context, is therefore not a locational term, referring to *where* someone is, but instead becomes one of identification, referring to *how* someone is (Norberg-Schulz 1979). Place therefore exists only in relation to a subject's experience of it.

Space is to place as house is to home. Any house on any street is a living space, a personal space, an unfamiliar space, but home is the house in which you dwell. 'Dwell' here is not meant in terms of 'inhabit' or 'occupy', for you can inhabit a hotel or occupy your neighbour's house, but neither are your home. 'Dwell' instead refers to a particular mode of being-towards-the-world. Ingold (2000) calls this the "dwelling perspective". It implies that you distinguish a house from your home not through any formal quality it possesses; instead, the label 'home' arises from a dynamic relationship between a house, you, and your being-towards-the-house, or your experiences in and of the house. To paraphrase Casey (1996, 27), a house *is*, but home *happens*.

This prioritization of process over form is essential throughout the remainder of this work. Space is not physical extension, but rather an existential condition; likewise, place is not a physical locale, but instead a dynamic, comprised of a locale and its physical milieu, and a subject, along with his or her actions, experiences, expectations, memories, and being-towards-the-world. Places in this sense 'gather' – they hold things, experiences, memories, thoughts and histories (Casey 1996). "[A] given place takes on the qualities of its occupants, reflecting these qualities in its own constitution and description and expressing them in its occurrence as an event" (Casey 1996, 27).

Bringing these ideas back towards the topic of rock art, we can understand why Fitch (1988) prefers the term 'rock art place'. The archaeological notion of a site focuses on rock art as an artefact, and effectively strips it of any physical or cultural context, bringing it into an abstract, scientific space in order to objectively quantify it. In the context of this discussion, we can see that "the scientific method, which was designed not to influence what we studied, has been carried over to influence how we view our relationship with the world at large" (Dingus 1988, 37). If we instead consider rock art to exist in places as defined herein, we can include in our investigations not only the images, but also the rocks on which they were painted, the people who painted them, their relationship to other places, and the paths that connect them. Understanding that there existed an active relationship between rock art sites and those who used them can provide insight into rock art that is not available through scientific methods (Swartz and Hurlbutt 1994).

Sacred Space

Sacred space is a particular category of space, or manner of being-towards-the-world, which deserves special attention. The term 'sacred' comes from the Latin verb *sancire* – "to set apart, to limit, circumscribe, draw a boundary around". In contrast, the word 'profane' comes from the Latin *pro fano*; literally, "in front of the temple", from *pro* (before) + *fano* (ablative form of *fanum* – temple). In Rome, those not initiated in the sacred rites were not allowed in the temples – they had to remain out front, or outside the boundaries set by the temple, in the spaces of daily life. The modern dichotomy of sacred

versus profane therefore comes from a spatial distinction between the space of daily life and the space *set aside* by the temple. Interestingly, the etymology of the word 'sacred' is, in many languages, traceable to a term conveying the notion of 'setting aside' or the creation of a 'boundary' (Anttoten 1992).

'Sacred' is therefore a spatial category, dividing one kind of space from another by means of a boundary. In the case of a Roman temple, this boundary was created when the temple was constructed. It was only after the creation of a boundary, which defined behavioural restrictions and therefore changed the way visitors to the temple perceived the space, that the space became sacred. In the context of the BCS rock art tradition, the situation is different. Archaic artists did not create boundaries, they merely revealed them. "The selection of certain things and objects for boundary markers and markers of value (that is, the sacred), is based on the perception of *anomaly* and *liminality*" (Anttonen 1992, 34). BCS rock art sites, it will be shown, are found at anomalous and liminal places in the landscape. These sacred places were embellished through the production of rock art, but they already existed as boundary markers. They were exceptions to phenomena that belong to the sphere of everyday life – they only had to be recognized as such. Recognition of the sacred therefore has its roots in the perception of the phenomenal, in being-in-the-world and being-towards-the-world.

Once recognized, these places which were to become rock art sites were almost certainly the location of ritual activities. It was only by ritual means that the places could become socialized and be given a place within Archaic culture. Furthermore, because these places immediately came to represent qualitative unconformities in the (natural, social, cosmological) landscape, they had to be incorporated into the cognitive mindscape of the society – in a sense, they were controlled by being made coherent. "The meaning of these kinds of boundary points was always expressed in rituals. Ritual handling was necessary because a change in everyday categories meant a change in the cosmological categorization of experience... [Through ritual] the potential threat and emotional insecurity associated with transgression of boundaries could be warded off or minimized" (Anttonen 1992, 34). They therefore became incorporated into the realm of the metaphor,

and the anomalous or liminal place is subdued – still powerful, but under control because it has been understood in terms of that which is familiar.

Eliade suggests "[t]he manifestation of the sacred ontologically founds the world" (1959, 21). His definition of the sacred is rather different than the one espoused above; it is one based on heirophany and cosmogony, both of which transform the sacred into a social rather than a spatial category. These definitions, however, are not mutually exclusive, and can both account for the nature and existence of sacred space. Perhaps the spatial definition, which requires that the sacred be manifest perceptually, is better suited for defining and describing sacred *place*, and Eliade's ontological definition is better for discussing sacred *space*, as "a sacred space may be defined as much by the visible and the tangible, as by the invisible and the extrasensory" (Arsenault 2000, 78). Either way, considering how and why rock art sites, their physical surroundings, and the paths that lead to them may have been sacred is an important part of this study.

Experiencing Architecture

If we ask what is the most essential *kind* of space a rock art site occupies, perhaps the first answer will be a 'social space' or a 'sacred space'. These, however, are cultural manifestations, which arise from a subject's attitude towards a space, from his or her being-towards-the-world. These certainly describe the kind of space present at a rock art site, but prior to this, rock art inhabits a physical space, an architectural space. Such spaces are primary because they derive directly from perception, from the raw experience of being-in-the-world, prior to the interpretation or valuation of that experience. Architecture is normally thought of as pertaining only to built places, but Giedion (1964) provides a more encompassing definition. He suggests architecture is a Gestalt, one of form set against space (space in the traditional, mathematical sense). Thus natural places, such as a rock shelter or a clearing in a forest, may be spoken of in architectural terms. Further, this does not just apply to interior spaces:

> *The same radiation that gives a hollowed-out interior space its psychic form (its Gestalt) emanates also from volumes. The difference is that these*

do not radiate inward toward an interior space, but stream out into the cosmos (Giedion 1964, 506).

Consider, for example, a canyon, like the hundreds found in the study area. From above, it is defined in terms of empty space set against the form of the land, but from within the canyon, the figure-ground relationship is reversed, and the place is defined by the cliffs on either side, from which space emanates outwards.

Speaking of a rock art site in architectural terms can provide a fresh perspective. We can begin simple, using spatial designations like 'entry', 'enclosure', or 'focus' to describe the physicality of a place (Swartz and Hurlbutt 1994). We can use purely architectural terms such as 'hogback', 'nave', and 'choir' to draw analogies between rock art places and traditional architectural elements (Strange 1987). Dichotomies such as hard:soft, taut:slack, heavy:light, light:dark, and solid:cavity (Rasmussen 1959) can be used to speak of the relationships between the rock art images and the form or colour of the underlying rock, or the space that surrounds it. Finally, we can speak of a rock art site in terms of a 'microcosmos' or '*imagio mundi*', whereby the place expresses the "existential foothold" humans have gained in the world by replicating it symbolically (Norberg-Schulz 1979).

Giedion (1962, 1964) provides an interesting 'architectural' analysis of European Upper Palaeolithic parietal rock art. First, he suggests that the apparent lack of spatial order among the panels is in fact not a lack of order, but rather a conformity to a different kind of order than one which orients Western space. Rather than being based upon a symmetrical, vertical-horizontal axial system, Palaeolithic art is based upon a certain freedom:

Caverns and cliffs have curving surfaces that change continually in form and direction. This multiplicity of form, this infinite freedom of directions, these endlessly changing surfaces were part of the being of primeval art (Giedion 1964, 502).

> *Caverns and cliffs have curving surfaces that change continually in form and direction. This multiplicity of form, this infinite freedom of directions, these endlessly changing surfaces were part of the being of primeval art (Giedion 1964, 502).*

The surfaces upon which Palaeolithic art is found are irregular in shape, aspect, texture, and colour; the orientation of rock art motifs is similarly irregular. Giedion (1962, 529) talks of "freedom of approach to all surfaces" without respect to horizontal or vertical, or even to the position of the observer. Such an approach to order is based in part upon the physical space within the caverns, but also on their acoustic space. The caves are dark, he argues, and their visual space is not well defined in the light of an oil lamp. Sound, however, surrounds the observer in all directions, then fades. The form and composition of the rock art images conform to these perceptual qualities of the space within the caves: "their aspect is dynamic, not static. Like sounds, they come and go" (Giedion 1962, 528).

An essential point to draw from this exploration of the use of architectural terms in describing rock art places is their foundation in the perceptual. Consider the following:

> *It is not enough to see architecture; you must experience it ... You must dwell in the rooms, feel how they close about you, observe how you are naturally let from one to the other. You must be aware of the textural effects, discover why just these colors were used, how the choice depended on the orientation of the rooms in relation to windows and the sun ... You must experience the great difference acoustics make in your conception of space..." (Rasmussen 1959, 33).*

The same applies to a rock art site. In order to comprehend the character, function, and meaning of rock art on the most fundamental level it is essential to note the ways in which it is perceived. A rock art site can be understood only when we "participate in the various affordances it offers, responding to the striking geographical features it projects,

adjusting to its changing visual, auditory, olfactory, and kinaesthetic qualities" (Lane 2001, 68). To do such, we turn to the topic of phenomenology.

Phenomenology

A rock art site is usually defined in terms of a painted or engraved rock face – the larger the panel, the larger the site. This definition is not useful in the present context: this is an anthropological discourse, concerned with how the world is defined in human terms. Rock art sites, therefore, must be understood and defined in relation to the human subject. To do this, we must focus not only on the rock art as an object, but also on how the human subject engages with the rock art and its surroundings. A rock art site must be thought of as a *place* to which one travels and within which one moves, all the while engaging with the rock art in a corporeal manner. The body of theory which best deals with this bodily being-in-the-world is the existentialist phenomenology of Merleau-Ponty.

Philosophy investigates the ways in which people understand the world. Phenomenology arose in response to the idea that many philosophical traditions begin their investigations too late, taking our basic knowledge of the world for granted as 'common sense' and not exploring the manner in which that knowledge is obtained. Phenomenology therefore calls for a return to the origin of our knowledge of the world: perception. Specifically, phenomenology is concerned with 'raw' perception; that is, the actual acts of experience as they exist *prior* to the addition of judgement or cultural interpretation.

Early phenomenologists (Brentano 1995 (1874), Husserl 2001 (1901)) considered perception to be a mental phenomenon. They posited 'arrows of intentionality' which linked the purely subjective, internal world with the purely objective, external world. Such a model includes a static, transcendental Ego receiving presentations of things, thereafter reduplicating the world internally. Merleau-Ponty's existential phenomenology (2003 (1945)) is quite different. He was strongly opposed to this sort of rationalist, scientific empiricism; specifically, to the notion that there exists an absolute world of things which have inherent properties that are passed on to a waiting subject (Gill 1991).

Merleau-Ponty denies this ontological primacy of the world, suggesting instead that "the perceptual synthesis of the object is accomplished by the subject" (Csordas 1993, 148); in other words, the 'things' of the world have only relational significance, and their status as objects comes only after they have been perceived by the subject, at which time cultural meanings and interpretations are added and the world becomes known.

> *For Merleau-Ponty, perception began in the world and, through reflective thinking, ends in objects. On the level of perception there is not yet a subject-object distinction - we are simply in the world. Merleau-Ponty proposed that analysis begin with the pre-objective act of perception rather than with already constituted objects (Csordas 1993, 137).*

Thus Merleau-Ponty's phenomenology aims to break down the barriers between subject and object by following a middle course between an empiricist objectivism and a cognitive idealism (Tilley 1994). It does this considering the human body, rather than a transcendental Ego, to be the nexus of perception, through which the world comes to be known. Such corporeal perception is not passive, as in a mind receiving data from the world, but participatory, involving the whole body sensing and moving through space and time.

Because perception, for Merleau-Ponty, is more corporeal than cognitive, the world becomes defined and described relative to the body of the observer. The perceived world is therefore not objective and absolute; but neither is it purely subjective. It exists in a dialectical relationship between one's body with its capacities to perceive and one's surroundings comprised of other subjects and objects. The self and the world are therefore mutually constitutive and constituting. The only prerequisite to being able to describe the world from such a phenomenological standpoint is that one must be in the world, thereby being in a position to perceive; this is a condition that is always already fulfilled (Casey 1996).

A phenomenological investigation of a place involves being in and moving through place, while paying particularly close attention to the nature of one's sensory-motor experiences *as they are presented to one's consciousness*, prior to the application of judgement, of cultural or personal meaning. This 'raw data', so to speak, is objective insofar as it is pre-personal, but this is not to say that it is empirical data. Pure perceptual data is perspectival and synaesthetic. The physical, measurable size of an object, for example, is irrelevant from a phenomenological point of view; only the apparent size – how large the object appears to the observer – is important. Further, data from different senses cannot be separated out from one another:

> *When we consider, for example, a glass vase, a knife blade, a birch branch, or a fold in red velvet, we realize that an object's form and the brilliance or dullness of its color are indicative of its texture, its flexibility, its warmth or coldness, its weight, its manner of lending itself to movement, its sonority when struck, and so on. In its own way, each of the senses reveals the object's inner core, or structure, and thereby communicates with the other senses as well (Langer 1989, 78).*

What results from such an investigation is a descriptive, synaesthetic account of the world as it is experienced. It is not a subjective account of one's personal experiences, as the descriptions are anonymous and pre-personal, and the results are reproducible. One may eventually call on these descriptions, and use them as a foundation for understanding what these places may have 'meant' in the past.

Tilley (1994, 1999, 2004b, 2004c; Tilley and Bennett 2001) has adopted Merleau-Ponty's ideas in his explorations of rock art sites and other emplaced cultural artefacts. He contends that exploring places today from a phenomenological perspective can give insight into how the places were experienced in the past, because "the manner in which humans perceive the world is intimately bound up with the kinds of bodies we all have, and in a basic sense, share" (Tilley 2004a, 78). Tilley therefore becomes the common denominator in all the rock art sites he visits, and his descriptions of those sites are

written as they are revealed to him during his explorations. His accounts are perspectival, as that is the nature of our embodied perception:

> *We cannot 'know' the world in an objective and totalizing way, as our understanding of it derives from an embedded and necessarily partial perspective. Bodily movement through space is therefore crucial as it provides people with a particular way of viewing the world... so that the sequence in which things are encountered creates a narrative that structures understanding (Brück 2005, 47).*

Indeed, in Tilley's narratives, sizes and distances become relative rather than absolute, and things hidden from view are not revealed to the reader until they have been revealed to him.

Tilley describes how his body, that 'anonymous participant', interacts with the physicality of the art, and how his perception of the art changes as he moves through the landscape. He pays close attention to his various senses; for example, he describes the sound and smell of surf as it relates to rock art on the western coast of Sweden (Tilley 1999). Approaching rock art in this way is akin to participant observation. It brings the researcher back into the rock art, and brings the rock art to the reader. Because a rock art site as a place only exists through its relationship to the visitor, it must be approached as such.

Merleau-Ponty's phenomenology has been utilized elsewhere in anthropology as well. Richardson (2003) provides phenomenological descriptions of the experiences of being-in-the-market and being-in-the-plaza in a Costa Rican village. His observations revealed that the market and the plaza invoke two very different modes of being, dictated not only by the physicality of the places but also by cultural expectations which place limitations on a person's mode of being. It is therefore important to keep in mind those factors which are not preserved in the archaeological record, but which nonetheless might have dictated how a person experienced a place. Bachand *et al.* (2003) utilized phenomenological

description to investigate the distribution of human sculpture in the Mayan city of Copán, looking specifically at variations in the intimacy, visibility, and circulation frequency of different places within the city. When the authors compared their investigation of spatial organization with the placement of the statues they were better able to provide an explanation of the distribution of different statue forms throughout the city. Their conclusion suggests that the significance of the statues is largely dependent on these experiential elements of their surroundings. Goldhahn (2002) provides a convincing study in which he determines that a third of Sweden's Neolithic rock art sites were, at the time they were carved, situated along watercourses at the site of noisy rapids. He vividly describes the synaesthetic experiences of being at these places, recalling the sight, sound, and smell of the rushing water, the feeling of the mist, and the appearance of occasional, ephemeral rainbows rising above the water. He uses a metaphor of 'breathing' to describe the sound of these rapids, and considers consonances between the river's breath and the rock art imagery.

Phenomenological analyses of place allow for a very local, embodied understanding of the landscapes of rock art, as far as they can be understood from the standpoint of bodily being-in-the-world (Csordas 1999). Individual sites can be examined in terms of how the observer experiences them synaesthetically. The theoretical and methodological foundations for a phenomenological exploration of rock art sites inform much of the present study; however, they are also the most contentious, and have been subject to much criticism, which needs to be addressed.

Some criticisms of the phenomenological approach are easily overcome. Karlsson (1998), for example, a scholar of Heideggerean phenomenology, provides a lengthy critique of the approach from a strictly philosophical point of view, condemning it as a gross misinterpretation of phenomenology. The phenomenological approach to landscape and place, however, is not intended to be an exercise in philosophy; rather, it borrows ideas and techniques from the discipline and applies them elsewhere. Whether or not the methods outlined here represent exercises in 'true' phenomenological philosophy is

moot; rather, "what is at issue here is the way in which ideas drawn from this area of philosophy have been employed to interpret archaeological material" (Brück 2005, 46).

Ingold (2005) provides a different critique. In his review of Tilley's *The Materiality of Stone* (2004), Ingold suggests the theory and methods which inform the study are so full of paradoxes that it is rendered useless. These include dichotomies such as literal/poetic, nature/culture, and stasis/movement, which Tilley aims to undermine, but Ingold believes to remain present throughout the work in question. Tilley's response to these claims is excellent:

> *Do we simply 'identify' these contradictions in an objective and 'rational' manner? Are they to be taken in some way as absolutes, somehow independent of our own particular point of view, or do we create them as part of a particular intellectual debating strategy of reading and analysis? (Tilley 2005, 126).*

Ingold's criticism, in other words, comes from his orientation as a logical positivist, and stems ultimately from a lack of understanding of Merleau-Ponty's philosophy, which aims to replace the 'either/or' situation which informs empiricist traditions with a 'both/and' scenario. Ingold demands *either* heads *or* tails; Tilley reminds him that both are part of the same coin.

Ingold's criticism leads us to the most common critique of the phenomenological approach. Brück (2005) provides a comprehensive review of the dozens of responses Tilley and others have received in the literature; that which is put forth the most often suggests, quite simply, that the approach is entirely subjective. Many argue that despite the embodied, corporeal nature of human experience, and despite the fact that we all share similar bodies and therefore must have similar (sensorial) perceptions of the world, a researcher performing a phenomenological exploration of a place reveals *only* the researcher's own personal and subjective experiences of that place. Like the critique proposed by Ingold, this stems from a misunderstanding of the theory underlying the

methodology, and from an inability to allow intermediation between subjective and objective. Further discussion, and some thought experiments, will clarify this.

The empiricist tradition, which is but one way of understanding the world, demands the ontological primacy of things. In other words, it requires that things in the world have properties like colour, shape, and size that are absolute and independent of any human variables. Without such absolutes, the world cannot be quantified. This amounts to the 'objective', and is the sphere of investigations of science.

An alternative view, espoused by, among others, Merleau-Ponty, is that things in the world have only relational properties. Consider, for example, a windowed room, bathed in sunlight – the walls of this room are painted eggshell white. We might ask: "what colour are the walls?" The empiricist would answer "white"; but at dusk, or in a shadowy corner, do they not appear grey?; at sunrise, orange?; and at night, black? The properties of things in the world depend on who is experiencing them, and how; the only true perspective is the 'lived' perspective.

At this point it will almost certainly seem I am only verifying the validity of this criticism, for if perception is indeed perspectival, it is impossible for the experiences of a modern researcher to approach those of a past agent; after all, is this relativity of perception not equal to subjectivity? This is, however, a further misunderstanding, for it is precisely this perspectival nature of perception that allows the phenomenological approach to work as it does, and allows it to provide a fresh perspective on the subjects of inquiry. While in the field, I relied upon a four-wheel-drive truck for transportation, used freeze-dried food for sustenance, and used signals coming from a network of 12 geosynchronous satellites and interpreted by a solar-powered GPS device to keep from getting lost. But from where I parked on the canyon rim, to the alcoves containing the rock art, I travelled using my body; climbing to the sites, moving around them, and experiencing the rock art, I used my body. What I experienced was certainly dependent upon numerous variables, but primary among them were the relationships between my physical body and the land. I could not move wherever and however I pleased – my

experiences of the places and the art were constrained by the physicality of the land and by the corporeal nature of my sensorial perception. Specific motor habits are required to navigate different kinds of places (Bachand et al. 2003), and the perception of the art and the landscape is "mediated through the human body" (Tilley 2005, 79). *That* is what we share with past agents, with the individuals who produced and utilized these rock art sites.

In the end, those who criticise the phenomenological approach as being subjective confuse this pre-personal, self-reflexive awareness of the kinaesthetic and synaesthetic experiences of moving to and being at rock art sites with our engrained, automatic desire to evaluate, qualify, judge, interpret, and explain those experiences. Smith and Blundell (2004), for example, discuss their own failure to draw any significant conclusions from their exploration of the phenomenological approach, which they applied to some San rock art in South Africa. Their phenomenological description of the landscape consisted of a very dry, one-page discussion of local geography and climate, with very little mention of experience at all. They then expressed their failure to see how this description could provide insight into the rock art. They conclude that their own cultural biases created lenses through which they saw the land, and this prevented them from seeing it as a native would.

What Smith and Blundell missed is that the experiences which a phenomenological exploration is concerned with are those brought about by being in and moving through a place or a landscape *before* they are contextualized within a belief system. It is therefore important to be mindful of the difference between the experiential origins of a person's world-understanding and the cultural interpretations of that understanding.

This discussion, unfortunately, brings forth a further criticism of the phenomenological approach, which suggests that all bodies are in fact *not* the same, and that differences in age, gender, physical ability, and so forth will in fact lead to different experiences of the same place. This is a valid criticism, and I admit now that I do not address it to a large extent in the present paper. A similar criticism can be, indeed often has been, posited of

any interpretive scheme in anthropology. The present work is not all-inclusive, but rather represents a refreshing exploration of possibilities:

> *[B]y the sensuous exploration of past monuments and landscapes through our bodies at a human scale, rather than the abstracted scale of the map or a series of measurements or plans, we are able to appreciate and understand them in a strikingly different way (Tilley 2004b, 201).*

Two final criticisms need to be addressed. Fleming (1999) and Brück (2004), 2005) suggest that the relationships Tilley draws in his various writings between experiences of and the physicality of rock art sites, megaliths, or the landscape may in fact be the result of coincidence rather than intention. Tilley responds thusly:

> *[T]here is never likely to be one way to understand landscapes in terms of intentions, but many. It becomes a multiple field of interpretive possibilities, a dialogue between the archaeologist and the material remains of practice. The only reason to be depressed about this is if we are striving for certainty. But that is not the name of the game in any social science (Tilley 2004a, 78).*

Of course we cannot know with certainty if our interpretations of the past are correct; if we could, they would be called 'statements of fact'. I have attempted herein, as I am sure Tilley did, to provide as much evidence as I deem necessary to support my conclusions.

Finally, it has been argued (see Brück 2005) that within the bounds of the phenomenological approach, it is impossible to move from the elucidation and description of experiences to the possible meanings attached by past people to those experiences. This is absolutely correct; but, like the archaeology of landscapes, the phenomenological approach is not an end in itself, but one tool among many for understanding the past. This is a good opportunity to introduce the next one.

Phenomenological studies, together with landscape analyses, can work together to build an understanding of how rock art sites and their surroundings were engaged with physically. The artist chose a location in accord with certain operational rules, a place with special significance in a special location, and produced rock art. Henceforth, the site must be travelled to and, once there, the place negotiated, in order to engage with the images. The physical context of the rock art, both locally and on a larger scale, therefore become agentive – an extension of the artist's person – determining where and how interaction with the rock art may take place. Understanding the nature of this agency is one way to move from experience to meaning.

Art and Agency

The production of a rock art site involved more than merely applying pigments to a stone surface in a particular pattern. The producer(s) of a rock art panel chose a place in the landscape to hold the images, they decided upon a surface within that place on which to paint, and they considered where on that surface the images would go. They prepared the pigments, choose a subject, and applied the pigments to the surface. Presumably, these actions all took place within the context of the producer's intentions – the person had a goal in mind, and by means of the rock art, functioning within its cultural and physical context, the person accomplished that goal. The rock art *did* something; indeed today, it still does something. It brings tourists and researchers through Utah's canyons to hike and climb, to travel to the sites and spend time in the presence of the images. Even in the absence of the producers, the images still exert an influence on people.

Some of the things a rock art site 'does' to modern visitors depends on the person. An artist or art historian might observe the images in aesthetic terms, a tourist will wonder and speculate about the meaning of the ancient forms, and an archaeologist will measure, compare, and record. Other influences are not so dependent on the visitor – a rock art site will say 'hike here', 'climb there'; 'stand there', 'look here'. These latter experiences can be explored within the framework of the phenomenological approach to place, while the former say more about the visitor than the art. Likewise, the kinaesthetic experiences were shared by past visitors, while the personal experiences were not. Finally, while it is

impossible that a modern visitor's personal, culturally-dependent experiences fall within the intentions of the artist, the kinaesthetic experiences probably did. They chose where to place the images, and thereby determined how the images would be viewed.

The importance behind these thoughts is the fact that, after thousands of years, people can still be subject to the intentions of a past individual. In a sense, the agency of the artist survives within the rock art. It is this idea which forms the centre of Alfred Gell's anthropological theory of art (1998, 1999). Reacting against the propensity of anthropologists to attempt to recover past aesthetic systems, an activity which Gell insists is a product of modern, Western notions of 'art', Gell provides a radically different interpretive framework for the exploration of anthropological art objects. He considers art objects to be extensions of the artist's social agency, so much so that they effectively become social agents themselves. Art objects are expressly produced to fulfil a social function, and can affect changes in the social milieu even in the absence of the artist. Art is "a system of action, intended to change the world rather than encode symbolic propositions about it" (Gell 1998, 6).

By contextualizing art objects within a network of social actions, and assigning them with social agency, Gell, like Merleau-Ponty, prioritizes process over form. He suggests art objects have no existence as such independent of their manifestation in social interactions. While Gell does not negate the significance of the formal aspects of an art object, he does limit his scope of inquiry to the visual and material specificities of an art object, which he believes are equivalent to an objective embodiment of the physical processes which were involved in the object's manufacture. As such, a person who views the artwork becomes aware of the object as the physical residue of another's agency, and thereby acknowledges the process behind the form. Complex forms require technologically complicated manufacturing techniques, and may thereby dazzle the viewer. Gell calls this "enchantment". The primary example he provides is a discussion of the prow-boards on Trobriand Kula canoes. The visual and material specificity of these complexly-carved wooden objects indicate the technical virtuosity of the producers. They dazzle outsiders who look upon them, for the outsiders cannot comprehend how such

complexity could be brought from ordinary wood by ordinary means; this enchanting power affects asymmetrical social relationships and causes Trobriand trade partners to part with goods for less than their worth (Gell 1999, 164 *ff*). The prow-boards as objects embody the artist(s) in the sense that they are objectifications of their labour, but also because they function as extensions of the social agency of the artist(s), mediating social relationships in the absence of the artist. Gell uses the phrase "distributed personhood" to refer to the ability of art objects to act as indexes of agency; he suggests an individual's person becomes distributed in every art object he/she produces.

Art objects can come to embody more than the artist. Idols, representative and otherwise, inasmuch as they are indexes of the divine, do not stand for gods, nor do they symbolize gods; rather, they are the embodiments of gods. The objects themselves are often treated as though they are living things: they are fed, washed, dressed, anointed, and otherwise looked after. They are spoken to, and often speak back. Their social agency is powerful and pervasive, be they finely-wrought anthropomorphic likenesses or just a polished stone.

The primary criticism of these theories is that by restricting the exploration of form to those qualities of an object which attest to the agency of the artist, Gell leaves no room for symbol. In fact, he insists that the symbolic aspects of an art object are extraneous to its material and visual characteristics (D'Alleva 2001). Campbell (2001) evaluated Trobriand prow-boards in light of their formal qualities. She found that there are strict limitations concerning what design elements may be incorporated into the object, and where the elements may be placed. Moreover, all of the design elements have metaphorical connotations. When these elements, which metaphorically embody qualities related to smooth sailing and trading, are incorporated into the design of the prow-board, the canoe itself becomes imbued with those qualities. Thus, in Campbell's view, it is as much the formal qualities of the prow-board which permit it to fulfil its role as the material and visual qualities which Gell emphasizes.

While Gell's theory was introduced here by suggesting that rock art sites are agentive by virtue of the fact that they influence how a visitor to the site experiences the place and the images kinaesthetically, this does not fall within Gell's theory. Gell's discussions are set within the realm of mental action and interaction, and do not account for the physical. Moreover, his anthropology of art leaves little room for metaphor. But combined with other ideas presented previously, Gell's anthropology of art can provide a fruitful context for the further exploration of BCS rock art. We therefore start anew, borrowing from and expanding on Gell to explore how BCS rock art is an extension of the social agency of the artist(s), affecting those who visit the sites both mentally and physically.

A rock art site is a set of objects intently composed in such a way as to elicit a set of relationships between the artist, the art, and the viewer. A person travels to a rock art site in order to engage with the place and the images on a level beyond that of passive observation. The content of the art, the composition of elements, the physical surroundings – all these work together to elicit a reaction, some change in the mind of the viewer.

We have already explored in brief how the artist's choice of place can act as an extension of his or her agency, affecting how the rock art is experienced *physically*. The images can work in a similar fashion. In nearly all instances, the rock faces containing BCS rock art are approachable; but often, the images were placed high on these rock faces above the visitor's head, requiring that the visitor look up to see them. Other physical relationships exist; these are discussed at length in later chapters. What is important here is to note how the images extend the agency of the artist, and affect the visitor kinaesthetically. Further, the anthropomorphic forms which dominate BCS rock art work to modulate space, orienting the visitor in certain ways, and dictating to the visitor how they may be experienced. The visitor in this way becomes assimilated into the corporeal space of the figures. The anthropomorphic images embody the agency of the artist, as well as the agency of the beings they represent. Because many of the human figures are life-sized or larger, they possess a certain quality of personhood. Additionally, many figures have eyes, which reciprocate the gaze of the visitor. A visit to a rock art site therefore becomes

a social engagement, whereby the visitor, perhaps even in a ritual setting and within a context of behavioural prescriptions, engages with people and beings not physically present. It is my contention that these figures were not merely representations of bodies but *evocations* of bodies; they will be dealt with as such.

The largest panel in this tradition contains upwards of 50 life-sized anthropomorphic figures, painted in a single row across a flat cliff face in a spot where the canyon widens considerably. While there alone, or even in a small group, one feels outnumbered; however, this particular site could easily house 100 spectators. Conversely, there are sites with one or a few full-sized figures, painted in a much more confined place, where only a handful of people could gather comfortably. This variability in the intimacy of one's engagement with the personhood of the art, as well as with that of other viewers, deserves attention.

More variables are involved, and all are discussed later. The rock art, in the context of Gell's theory of art, is considered to be agentive. By now, a rock art site has been transformed from the archaeological definition of a group of inert images on a stone surface to a collection of agentive, embodied evocations of other people and things, set within three-dimensional places which connect to form a web of significances across a variety of landscapes. These places store not only images, but stories, memories, and other non-physical elements. People visit these rock art places to engage with the artists and with the things which the images evoke. All of these variables are explored from a phenomenological perspective, in an attempt to connect artefacts with people by describing the embodied experiences of travelling to and being at the sites, and of apprehending the images. One piece, however, remains – a theoretical framework for tying all of these elements together, something which connects the experience of place and of art with the past cultural significances of those experiences. That connection is drawn with metaphor.

Metaphor

A common thread running through the above explorations of landscape theory, space and place, phenomenology, and the agency of art is a prioritization of process over form. The nuances of landscape, place, and art are not inherent traits living in the materiality of things which impose themselves upon us; rather, the specificities of the world are discovered through a subject-object dialogue. Knowledge of the world is experiential, and as such, the world does not exist *out there* in the form of things, but rather subsists where the knower and the known meet in a place transcending any distinction between the two; that is, it exists only in act (Coomaraswamy 1956 (1934)). As such, it would be inappropriate to speak of the meanings of things in terms of a digital semantic system, whereby internal, Platonic 'signifiers' are linked with straight arrows to external and eternal 'signifieds'. In such a system, meaning is reduced to a system of symbols, which become the façade of some more abstract reality (Versluis 1992, 45). Instead, we need a system of meaning which is dialectical, which is equally constitutive and constituting – one capable of expressing processual relationships rather than just formal ones.

Metaphor is a process by which the intangible aspects of the world are mediated in and through its tangible particulars. All we know is what we perceive; to grasp what we cannot perceive we equate it with the perceptible. Metaphor is therefore eqative, but only analogically. It is through metaphor that the ineffable is made experiential. This experiential basis of metaphor makes it essential to the present work. Lakoff and Johnson (1980, 1999) outline a subset of experiences which they deem fundamental: these are experiences of our bodies, and of the interactions between bodies and our physical environment – they are the perceptual experiences which are the topic of exploration of phenomenological analyses. These "experientially basic gestalts" form the basis of all metaphors by which the non-perceptual experiences of our life-world come to be understood.

> *We understand our experience directly when we see it as being structured coherently in terms of gestalts that have emerged directly from interaction with and in our environment. We understand experience metaphorically*

> *when we use a gestalt from one domain of experience to structure experience in another domain (Lakoff and Johnson 1980, 230).*

Consider, for example, the following sets of metaphors which are grounded in each of our five senses. Every one draws from common sensorial experiences and uses those experiences to structure our understanding of abstract ideas.

Sight

I *see* what you mean; His argument is *clear*; She does not *recognize* the problem; You need to *look at the big picture*; I *see something beautiful* in the *ugliest* situations.

Touch

I can't *handle* stress; I have a *firm grip* on the situation; We have finished the *rough* draft; They are rather *sharp*-witted; His apology *touched* me.

Taste

Your mother is *sweet*; I love the *taste* of victory; He has a *sour* disposition; Her words were *bitter*; Your style is *tasteful*; Let's *spice up* this meeting, give it some *flavour*.

Hearing

I don't like the *sound* of that; She's a real *loud-mouth*; These words *ring* true; It's *music* to my ears; The data remain *mute*; His response was *resoundingly* positive.

Smell

Something is *fishy* about this; The situation *stinks*; I caught a *whiff* of sarcasm in his voice; I *smell* trouble brewing; Her speech *reeks* of nationalism.

Note also a sixth category which comes from general sensorial experience: words like 'perceived', 'perception', 'perceptive' and 'sensible', 'senseless', 'sensitive' all have metaphorical connotations. Synaesthetic metaphors can also be produced by crossing between these five sensorial spheres: sounds can be *sharp* or *dull*, *soft* or *hard*; colours can be *loud* or *muted*; smells can be *sweet* or *sour*, and so forth.

These metaphors are comprehensible not because our semantic system allows us to find correlates for these words and to find logic in the order in which they are presented, but

because we can relate to the analogies on a conceptual level. These sentences represent basic perceptual and motor experiences, which have been "metaphorically extended to structure nonphysical, nontactile, and nonvisual experiences" (Rohrer 2005, 17). Metaphor is therefore not a system of language, but a system of thought. Furthermore, metaphor works because the experiences used to draw comparisons are basic and shared by everyone.

> *[S]ince our brains are embodied, our metaphors will reflect our commonplace experiences in the world. Inevitably, many primary metaphors are universal because everybody has basically the same kinds of bodies and brains and lives in basically the same kinds of environments, so far as the features relevant to metaphor are concerned (Lakoff and Johnson 1980, 257).*

Caution should be exercised, however, in calling any metaphor "universal". As Lakoff and Johnson themselves point out, even basic metaphors can be culturally contingent. For example, we are accustomed to projecting a 'front/back' orientation (a metaphor) onto objects such that the 'front' of the object faces us, and its 'back' faces away; the Hausas of northern Nigeria, however, reverse this projection, such that the object faces the same direction as the person, and the object has its 'back' to the observer (Lakoff and Johnson 1980, 161). Metaphors can therefore be fundamental within a culture system, but not necessarily cross-culturally. Indeed, studies of this phenomenon in other languages show that conceptual metaphors "vary cross-culturally as to which particular bodily source domains were used to understand a given target domain" (Rohrer 2005, 14).

Conversely, Lakoff and Johnson argue that "the system of conceptual metaphors is not arbitrary or just historically contingent; rather, it is shaped to a significant extent by the common nature of our bodies and the shared ways we all function in the everyday world" (1980, 245). It is true that metaphors are shaped by our embodied experiences, and that systems of metaphor are not arbitrary, but to say there is no historicity present in such systems is reckless. Rohrer (2005, 14), for example, discusses a study which traced the

metaphor *knowing is seeing* (*i.e.* I *see* what you mean) to Greek, in which the perfective form of *eidon* "to see" is *oida* "sight, know". The latter is the root of the word 'idea' which today has lost its literal connection to the notion of seeing.

It is also noteworthy that while these basic conceptual metaphors are certainly not arbitrary, there is at the same time no reason to expect to find a tight structuralist fit governing a system of metaphor – there can be incongruences and contradictions (Tilley 1999, 29). For example, we conceive of the future metaphorically as being both in front of us (the upcoming weeks) and behind us (the following weeks). There remains, however, some regularity, for both of these metaphors make use of our experiential understanding of space to help us conceptualize the abstract notion of time. This metaphorical conception of time as spatial extension is of course culturally-contingent, and gives rise to the Western notion of linear time (Lakoff and Johnson 1999) – other cultures which conceptualize time as circular will naturally utilize different experimental gestalts for time metaphors.

In the end, our fundamental understanding of the world is grounded in metaphor; it is structured by our experiences and at the same time structures our experiences. Because of this cyclicity, when exploring rock art sites and the experiences of visiting them, we have to look in two directions: in one, the things and experiences we discover can be conceived of as possible metaphors; in the other, they can be seen as the experiential correlates of a metaphorically-structured belief system. The experiences of being in the world are the source of our world-understanding, and at the same time they instantiate and authenticate our belief system. Rock art sites form a part of the shared belief system of the people who produced it. Through rock art that belief system is symbolically and performatively expressed in such a way that it evokes memories and experiences which in turn can serve to vivify that belief system (Dornan 2004).

We arrive now at the most pressing issue. In order to make use of this theoretical discussion of metaphor, we need to be able to apply it to the rock art. We have seen that metaphors are grounded in our basic perceptual experiences – the same experiences that

are of interest to phenomenological explorations; indeed, Tilley argues that metaphors are both "the medium and outcome of any phenomenological analysis" (2004c, 23). But while metaphors are not arbitrary, they are not necessarily systematic, and can be culturally contingent. We therefore cannot use our own basic metaphors for interpreting rock art, but rather we must discover those used by the artists.

BCS rock art is, by and large, non-literal. Many sites, for example, depict winged anthropomorphs. It is safe to assume such images are metaphorical. Metaphors are not arbitrary, so we can therefore explore possibilities. It is at this point where our analysis relies on a system of best-fit hypotheses; that is, of interpretations. Interpretation in this context becomes a manner of systematically examining the rock art, its context, and the experiences of both, looking for parallels, symmetries, and patterns, but paying equal attention to deviations. We must, of course, rely upon our past experiences as well. To understand the metaphorical significance of a winged anthropomorph, we must recall our own experiences of winged-things, and what they are like. Furthermore, spending time in the study area acquaints one with the experiences unique to the land – experiences of the topography, the weather, the floral and faunal communities, and so forth – these experiences help to better understand the possible range of experiences from which metaphors may have been sourced, and can lead to a clearer understanding of the metaphorical significances of the rock art. These methods and more are used here; the following section will expand upon and clarify the methods used in this analysis.

Field Methods

A total of 50 days were spent in the field during the spring and summer of 2005, from the 3rd of April to the 2nd of May and again from the 2nd of June to 21st of June. During this time I documented 62 Barrier Canyon Style rock art sites across an area of approximately 17,000 km^2. Because the sites are spread across such a large region, many of my days the field were spent driving. I estimate that I hiked 500 km to and from sites, and drove many times this distance. I lived in and worked from a four-wheel drive truck. The following pages describe my field methods, including site selection strategies and recordation techniques, and discuses some of the problems I encountered.

Site Selection

When I entered the field for the first time, I had locational data for about 20 sites, and knew I had to find many more. There are roughly 200 known sites in the BCS tradition, depending on whom you ask, but there is no document, published or unpublished, which discloses the location of more than a few, and most sites for which information is available are managed and presented publicly. Only a few people know how to get to the rest of the sites, but these people are either employed by or are/were under contract with the National Park Service, and were *contractually obliged* to not share any information with me. Although National Parks are owned by the people, access to information regarding cultural resources within Park boundaries is apparently exclusive and only available to a select few. I therefore had to find other means of locating sites.

Archaeological records of some individual sites exist; these are sorted by region, and are stored in different archaeologists' offices in different towns. I was explicitly refused access to records of sites on National Park Service (NPS) lands, even though I held research permits with them. From what I understand, the NPS used to allow research permit holders access to site records, but they no longer do. Records of sites on Bureau of Land Management (BLM) lands, however, were available to me after I obtained the proper permits. The BLM records are indexed electronically and are searchable, but I was given access only to the original paper documents, which are filed by the date the record was made. I therefore had to examine thousands of forms in several different offices across the study area, looking for any mention of BCS rock art. I eventually learned that most BCS rock art sites on BLM land have never been recorded. Of the records I found, most were incomplete, and only a handful proved useful.

Fortunately, throughout south-eastern Utah, there are dozens of amateur rock art enthusiasts who spend their free time visiting sites. This network proved invaluable to my fieldwork experience; it was through these contacts that I found the majority of the sites documented here. I would ask about local rock art enthusiasts in bookshops and map stores then track them down, or I would meet them by chance at some remote rock art site, whereupon I would describe my project and inevitably be met with great enthusiasm.

We would then open our maps and 'exchange dots' – each dot on a map represents the location of a rock art site. Vague directions would sometimes accompany those dots, and on the rarest occasions, I would even get GPS coordinates. But usually I would set out blind, and pick my way across the land until I arrived at the 'dot', then begin to scour the cliffs with my binoculars until I spotted the panel. This process sometimes took hours, and on a few occasions, I never found the rock art.

The point here is that rock art sites in this tradition are difficult to locate. Only three of the sites I recorded for this study were discovered 'on my own', by walking a canyon I thought might house some rock art, and being lucky enough to spot what was there (two sites are in the same canyon, and the search took two days; I later learned that I missed several panels in the vicinity). The rest I was either taken to, or came to me as 'dots'. To chance upon all of the sites I documented while in the field would have taken decades of dedicated searching. Archaeologists working for the BLM and NPS spend most of their time doing salvage work or protecting more accessible sites. They rarely engage in proactive surveys to find new sites – it is simply not productive to their role as managers. It is the amateurs who report new findings to the archaeologists, but unfortunately the archaeologists do not often find time to even visit the sites, let alone record them properly.

In the beginning of my fieldwork I therefore lacked a thought-out plan for selecting sites to visit and record. I simply went to each and every site I learned about, making no discriminating decisions based upon the quality, content, or location of the site. As time went on, I became more familiar with the spatial extent of the tradition, and was able to be more selective about what sites I documented. If I had visited several sites in one geographic area, and learned about one I had not visited, I was not likely to return and follow up on it. If I learned about a site in a region where my data were lacking, I was sure to visit it. I never asked my informants what the site consisted of – whether it was a large and well-preserved panel or a single faded figure made no difference to my plan. I was interested in recording a representative sample based on geographic location in order to get a wide selection of 'places' to study.

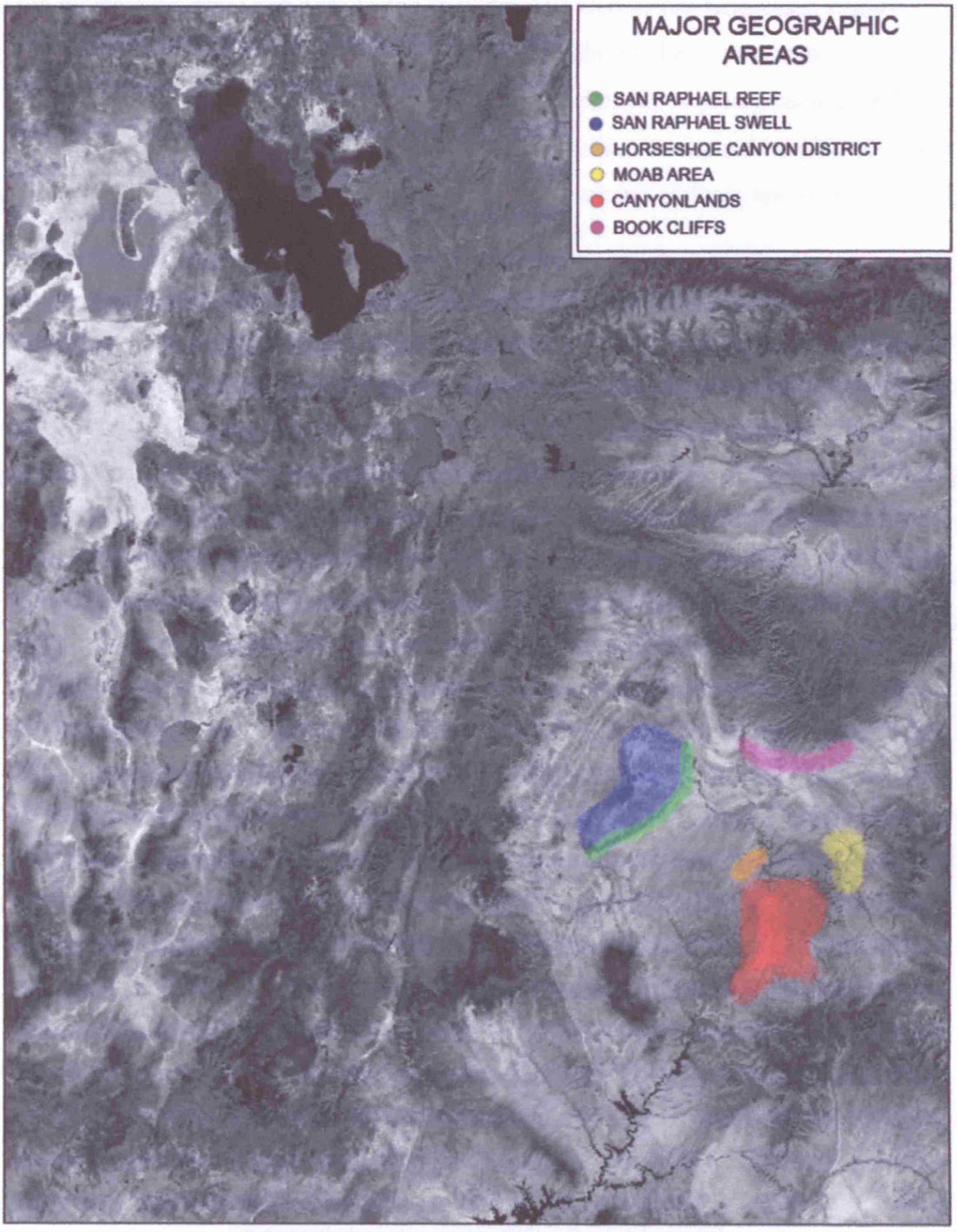

Figure 2.1 - A satellite image of Utah, showing the approximate location of six regions within the study area which are geologically similar.

This method of selecting sites by geographic location is acceptable for this study because regional 'dialects' exist not only in the rock art, but also in the landscape. *Figure 2.1*, a composite satellite photograph of the state of Utah, shows the approximate locations of six regions within the study area which are geographically similar; each area hosts a unique set of landforms and canyon types. These six areas correspond roughly to regional variations in site type and image style; I aimed to record at least ten sites from each region.

San Raphael Reef (green) – This is the name for the eastern edge of the San Raphael Swell uplift. Though not actually a reef, this landform resembles one in several ways. It is a striking, nearly-vertical barrier which separates the San Raphael Swell highlands (shown in blue) from the broad, flat San Raphael Desert which extends south-eastward from the base of the Reef to the red-coloured region on the map above. The Reef is comprised of a series of sedimentary layers which were thrust upwards by volcanic forces tens of millions of years ago. Each of these layers varies in hardness and composition, and as a result they each react differently to forces of weathering. Durable layers of Navajo and Wingate Sandstone form the rugged crags visible in the photograph in *Figure 2.2*; behind these, the layers are much softer, and have largely eroded away, leaving a long trench which parallels the contour of the Reef on its north-western edge. The Reef, at its highest, juts over 650 metres upwards from the flat desert below. Were it not for the canyons which cut through this landform, it would be nearly impassable.

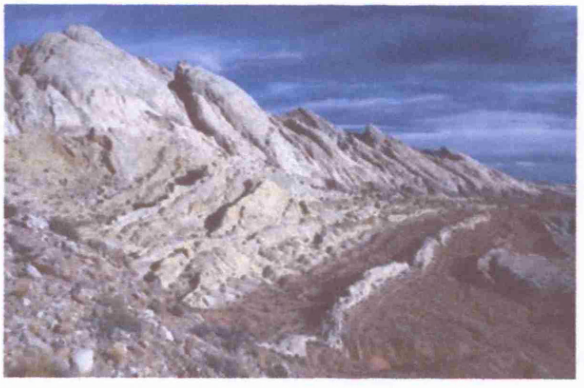

Figure 2.2 - A view of the San Raphael Reef

Canyons within the San Raphael Reef number in the hundreds. Each begins at the base of the Reef, level with the flatlands, and moves west or north-west into the stone massif. These canyons gradually increase in elevation, and eventually end deep inside the San Raphael Swell. Because the canyons move through the various uplifted sedimentary layers of the Reef, the canyon walls change in composition as one moves into the reef. They are typically just a few kilometres long, and do not resemble any other canyons found in the study area. Seven rock art sites were documented in these canyons.

San Raphael Swell (blue) – The Swell is a large, kidney-shaped uplift in the north-west corner of the study area, covering an area of about 4000 km^2. It is the region of highest elevation in the whole study area, over 1800 metres on average. On the east the uplift rises abruptly out of the desert in the form of the San Raphael Reef; on other sides the Swell climbs more gradually. The uplands of the Swell range from broad grass prairies intermingled with high buttes and mesas, to enormous canyons cut deep into the uplifted sedimentary layers. Because the region is considerable higher in altitude than the others, the area tends to be several degrees cooler throughout the year. The rock art sites documented in the Swell are typically found in smaller canyons or on rock outcrops resting above the flat plains, though a few sites can be found in some of the deeper canyons to the east. Twelve sites were found in this area.

Canyonlands (red) – The Canyonlands area consists of Canyonlands National Park, and some of the surrounding region. The area is split north-south down the middle by the Colorado River, and is perhaps the most rugged region in the whole study area. It is for the most part a maze of deep canyons, intertwining and intersection in a seemingly haphazard manner. Canyonlands is home to some of the most unusual landforms in the entire study region; this study documents 15 rock art sites in and around Canyonlands National Park.

Horseshoe Canyon District (orange) – This region is an artificial construct, as it is really part of the Canyonlands geographic area (red). It is set aside here because Horseshoe Canyon and its tributaries are host to an unusually large number of BCS rock

art sites. The Horseshoe Canyon District is a detached portion of Canyonlands National Park, which is protected and considered to be part of the Park because of the rock art found within Horseshoe Canyon. In fact, the canyon was originally named Barrier Canyon, and contains the type site for the Barrier Canyon Style of rock art. Ten sites were documented in Horseshoe Canyon and its tributaries.

Moab Area (yellow) – Moab is the largest town in the study area. It is situated within a broad valley along the Colorado River; spring-fed Mill Creek also runs through the valley year-round. Just north of Moab is Arches National Park, whose dozens of natural stone arches give the park its name. Interestingly, no sites were documented around the outstanding stone formations within Arches; however, in and around Moab Valley, 13 sites were documented. These sites are found in a variety of environs, from dry canyons to tall cliffs overlooking the Colorado River.

Book Cliffs (pink) – The Book Cliffs are a semicircular tract of towering, 300 metres tall cliffs bordered on the south, east, and west by a broad flatland. This giant arc measures over 100 kilometres at its widest point in the north. The southern tip of the cliffs lies about 50 kilometres north of Moab. Inside the semicircle of cliffs, the land is a jumble of canyons and mesas, and is quite difficult to navigate. The rock art sites documented in this area, however, are found in the canyons which cut perpendicularly into the cliff tract, and are all within a few kilometres of the canyon mouths. These canyons are broad, high-walled, and dry. Only three sites were located in this area.

The remaining three sites are found outside the above-named regions. Again, while these regions are largely artificial constructs, they do tend to each produce similar sorts of places for the production of rock art, and conform generally to regional variations in the art itself.

I have made only one follow-up trip to the study area since my fieldwork was finished, at which time I discovered a previously unknown site in the Moab area, making my count 63. While it represents less than a third of the known sites in the BCS tradition, the

variety of sites recorded has provided an immense amount of information. Two areas are not fully-represented; these are the Book Cliffs and Canyonlands National Park. While I do not know how many more sites there are in the Book Cliffs region, I do know that Canyonlands National Park holds at least 50 more sites I did not visit. This is the most remote and difficult to access region in the study area. I do not have locational information for these sites, but I have seen photographs of perhaps a third of them, and what I have seen does not depart from the sites I recorded in terms of the style and presentation of the art.

Recording Techniques

In the interest of time, and because hiking in the study area during the spring and summer can be quite difficult because of the extreme temperatures, I drove as close as possible to the rock art sites. From where I parked, I had to hike anywhere from a few metres to 25 kilometres to the rock art. My field kit consisted of the following:

- GPS receiver and maps for navigation and for recording site locations
- Digital camera and tripod
- Small solar panel for powering the GPS and charging camera batteries
- Ruled notebook and site recording forms
- Large tape measure, for recording the dimensions of panels, places, and images
- Tent, stove, rope, and other various camping equipment on overnight trips

While hiking to the rock art, I always paid attention to the land, taking notes and photographs along the way. I did this in order to become as familiar as I could with the nuances of the study area during the short time I was in the field. Within minutes, for example, one may travel from the bottom of a wood-shaded canyon, accompanied by a clear stream and patches of rustling willows, to the barren and soundless lands above, exposed to direct sunlight, and accompanied by a sparse cover of sagebrush and sand. The rock art is found in a variety of ecological zones; each provides a different background to experiencing the art.

I paid particularly close attention to water. The availability of water in this semi-arid environment is intermittent and often unpredictable, and an understanding of this must have been important to the producers of BCS rock art. I noted where, when and how it could be found on the ground, and where and when the rains came. I experienced a few small floods during the study as well, and recorded my experiences of them.

I also made notes regarding movement through the land. While wandering across the expansive upland flats, very little if anything is taller than a person, and one can move about freely in all directions. When in the canyons, however, one feels dwarfed by the sheer rock walls, and confined to a very linear movement. These variations in scale and allowed movement form part of a dichotomy between the decorated canyons and the upland areas.

All medium to large caves were explored as well, for these almost inevitably exhibited archaeological debris, and were at one time used as habitation sites. I felt it important to explore these places, as they provided a contrast to the rock art sites, which very likely had a different social and cosmological status than habitation areas.

Eventually my travels brought me to within sight of the rock art. The sites are usually visible from the canyon bottom, but must be climbed to in order to view them fully. During this part of the approach I was mindful of my movements, and of my physical relationship to the landscape and the art. Some sites are reached without difficulty, but some are quite dangerous to access; in fact, I was not able to reach one particular site, it sits above a small ledge seventy-five metres up a sheer cliff, and the only way to access it is to ascend a steep, narrow ramp. The climb was beyond my abilities, so I had to solicit the help of a friend, who is a rather good technical climber, to visit the site on my behalf.

In addition to noting the accessibility of a site, I paid attention to the visibility of the art. Some BCS rock art sites are panels 50 metres long, and are visible from great distances. Others consist of a small, single figure, and cannot really be seen until one is standing directly in front of the rock face. Still others are so lightly scratched into the rock that

they can only be made out at certain times of day. This variability in the visibility of the sites reflects one aspect of its accessibility; that is, how easily it can be found. Some sites are so 'out of the way', even hidden, such that they require a good deal of searching, even if one has been to them before. These aspects are all important to this study.

When I finally arrived at a site, I first spent some time becoming familiar with the rock art and the place. I walked around, looking at the images from every angle, and explored the immediate vicinity of the rock art. Often, the decorated panel is located in a tightly-bound place, and one cannot walk far from the art. This might be a small ledge half way up the side of a canyon, a small cove branching off the canyon and bounded by rocks or banks of earth, or perhaps a small cave or rock shelter. I also tried to determine if the way I approached the site is the only way, or if the rock art site may be arrived at by a different path. Very occasionally it is possible to climb up out of the canyon from a rock art site, and I always did so when I could, to consider the possibility that the site was accessed from above.

After I spent some time exploring the area, I started to record the site. I began by marking its location in my GPS receiver. This information was later uploaded to my computer, where the information was imported into digital topographic maps. I then recorded the site photographically, capturing not only the rock art from various perspectives and distances, but also the surrounding place, and the views from the site as well. I always photographed the view looking out from the site, and to the sides, up and down the canyon, to help remember the site's place in the landscape.

I then spent perhaps an hour filling out the site recording forms I developed for this study, describing all of the elements described above. Even the smallest sites, consisting of just one motif, were recorded this way. These forms, along with an explanation of each data field, can be found in **Appendix B** at the end of this study. Printed paper forms were completed at the site; the data was later entered into a corresponding database, both to archive the data and to facilitate analysis and cross-referencing.

Overall, the fieldwork went very well, and I did not experience any significant problems. The biggest setback was actually political, and stemmed from the attitude of some National Park Service employees towards rock art researchers. Their unwillingness to share the cultural heritage they manage with even a serious researcher holding a graduate-level degree in rock art research ultimately resulted in a hole in my data set, but I do not believe my results are significantly compromised by this.

Occasionally I could not find a site I set out to record, and sometimes I would hike to a panel only to find that it was not in fact BCS rock art, but represented a later tradition. Beyond this, the only other difficulties I faced involved cuts and bruises, extreme heat combined with physical exhaustion making hiking unbearable for more than five minutes before running for shade, and a broken water filter that made it necessary to hike back 25 kilometres to my truck in the failing light. Such is the land.

Analysis

This description of the techniques used to analyze the data obtained during my fieldwork will be brief for two reasons. First, the primary goal of this investigation was to explore a unique combination of several theoretical and methodological approaches to rock art, as described in the previous section. Second, the investigation was largely phenomenological in nature; as such, a large portion of the analysis took place in the field, while travelling to and exploring the rock art and its surroundings, using the techniques described above. From there, I explore possible meanings attached to the experiences revealed by the phenomenological explorations. This is done primarily via the metaphor theory already outlined. The bulk of this study is therefore comprised of these two elements, the phenomenological investigations and the analysis of the results through metaphor theory. What remains to discuss here are a few further elements; the discussion therefore follows the various data sets which resulted from my fieldwork, and describes how each was used.

Maps

The waypoint data from my GPS receiver (Garmin eTrex Legend C) were imported into digital topographical mapping software (Maptech Terrain Navigator v. 6.04 beta, Utah Edition). The maps are scans of United States Geological Survey (USGS) quadrangles, which are the country's standard. The maps are available in two scales: 1:24,000 and 1:100,000. The software allows the maps to be viewed contiguously, essentially providing a detailed topographical view of the entire state of Utah. Rock art sites show up as black dots on the maps. Waypoints were also made for major habitation sites and other significant places.

The software also contains detailed elevation data which supplements the information contained in the maps, and allows for 3D renderings of the land to be viewed. *Figure 2.3* shows a portion of the San Raphael Reef as captured from this software, and *Figure 2.4* is a 3D view of the same area. This is a view from above, as all maps are, and obviously does not provide an alternative to an embodied, lived perspective of the landscape as it is experienced; however, these maps have been useful in several ways.

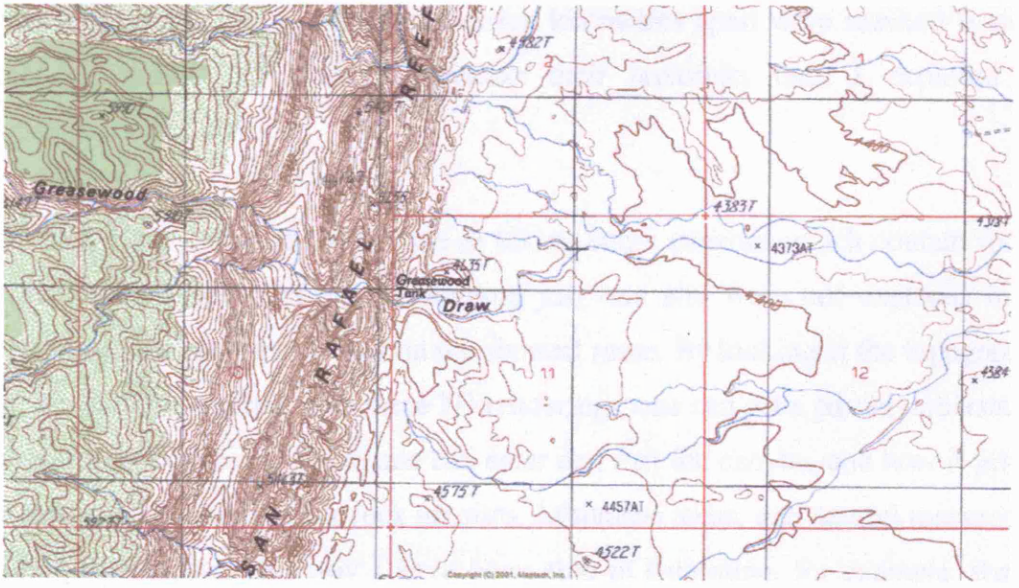

Figure 2.3 - A portion of a topo map captured from the mapping software used for this study.

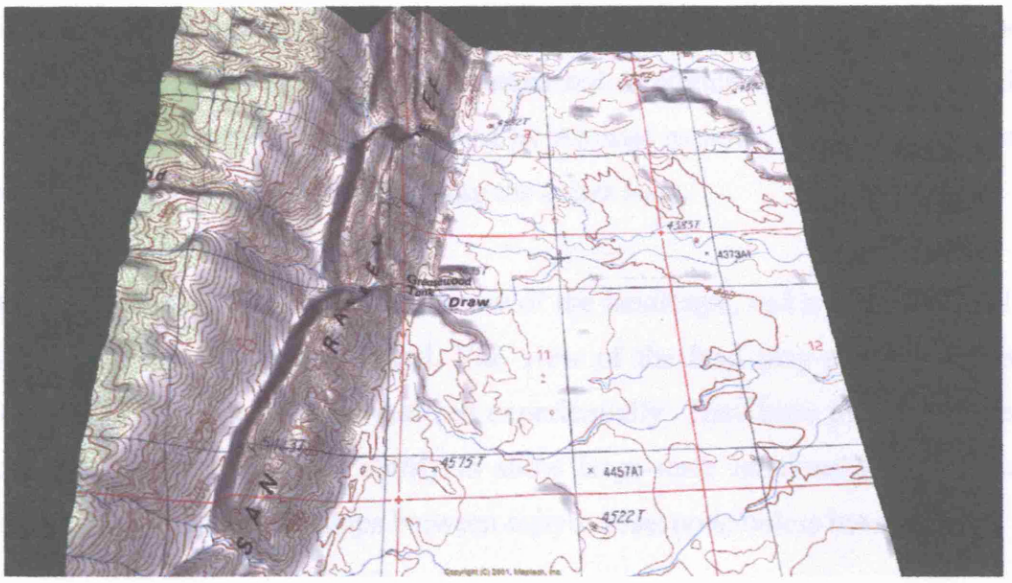

Figure 2.4 - A 3D rendering of the map shown in Figure 2.2.

First, they have provided an overall view of the position of the sites in the larger landscape. *Figure 1.1* from the first chapter, for example, was produced with the help of this software, and shows how sites tend to cluster in the landscape in certain areas. Because it was beyond the scope of this investigation to walk between every site recorded, this overall view has shown relationships between nearby sites which were not apparent in the field. Often, sites just a dozen kilometres apart were reached from very different directions, and I did not realize their proximity until I explored these relationships via the maps.

Second, they have provided a substitute to hiking entire canyons which contain rock art, albeit an artificial one. Canyons containing just one site were not explored in their entirety; rather, the site was visited via the shortest route. By looking at the topography of the canyon with the assistance of these 3D renderings, one can get a partial understanding of where the canyon leads, where one can enter and exit the canyon, and how it provides a path through the land to other rock art sites, habitation areas, and natural resources. By examining the maps in this way I have been able to determine, for example, that it is possible to travel from the Moab Valley through Seven Mile and Hellroaring Canyons, across the Green River to Horseshoe Canyon, and eventually end up in the Maze District of Canyonlands National Park. From there, one can cross the river again into the Needles

District, and finally return to the Moab Valley. This circuit passes dozens of rock art sites, and passes through several resource areas and ecological zones. It could well have been the path of a seasonal round followed by Archaic peoples. The maps have yielded this without having to spend months hiking the entire loop.

Again, these maps provide an artificial view of the landscape, and cannot be relied upon as an alternative to being in the land. The view of the land they show is an abstract construction, which can never be realized experientially. They have therefore been used sparingly and cautiously. Their ability to show large-scale relationships, interrelations between sites, and the relationships between canyons has nonetheless been helpful.

Photographs

Photographs are, in one sense, as artificial as maps. They provide a single fixed perspective of a rock art panel or a portion of the landscape – a perspective which was consciously chosen by the photographer. But like maps, the photographs taken during this study have several important uses. First, they provide a partial record of the rock art. When photographing sites, I was always careful not to fall into the trap of always framing my shot around the images on the rock, for while such pictures do record part of the visual experience afforded by the images, they lack context. These kinds of images are standard in the literature; when I see them I always find myself wondering where the rock art is, and what its relationship to the rock might be. Therefore in addition to such pictures, I produced photographs which revealed the relationships between the rock art panels and the rock, as well as with the places in front of the decorated panels. The photographs served primarily as mnemonic devices during this study, reminding me of these relationships. They also serve to illustrate arguments made throughout this study, and are used to instantiate and supplement textual descriptions of images and places.

Occasionally, the rock art did not photograph well. Some sites are today so faded that the figures can no longer be discerned. Others are rendered nearly invisible in direct sunlight, a problem which was not always possible to work around if had a limited time to spend at a site. In these cases, the photographs I took were often enhanced using photo editing

software (Adobe Photoshop CS2). *Figure 2.5* shows a photograph of a particularly faint panel, and *Figure 2.6* is a rendering of what the art may have looked like. This and similar techniques can reveal details no longer visible to the naked eye. Enhancing images in this way, however, moves against the goals of a phenomenological analyses, because it provides a wholly artificial view of the rock art. Rock art panels which require digital enhancement, however, were presumably not always difficult to see. Computer enhancement cannot reveal the original visual impact of these rock art sites – that is gone forever – but they can show one facet of what was once there. Such enhancements were used only when analyzing the formal aspects of the rock art, and in producing motif inventories and statistical data on the BCS rock art cannon, but never for assessing the experiences of viewing the images.

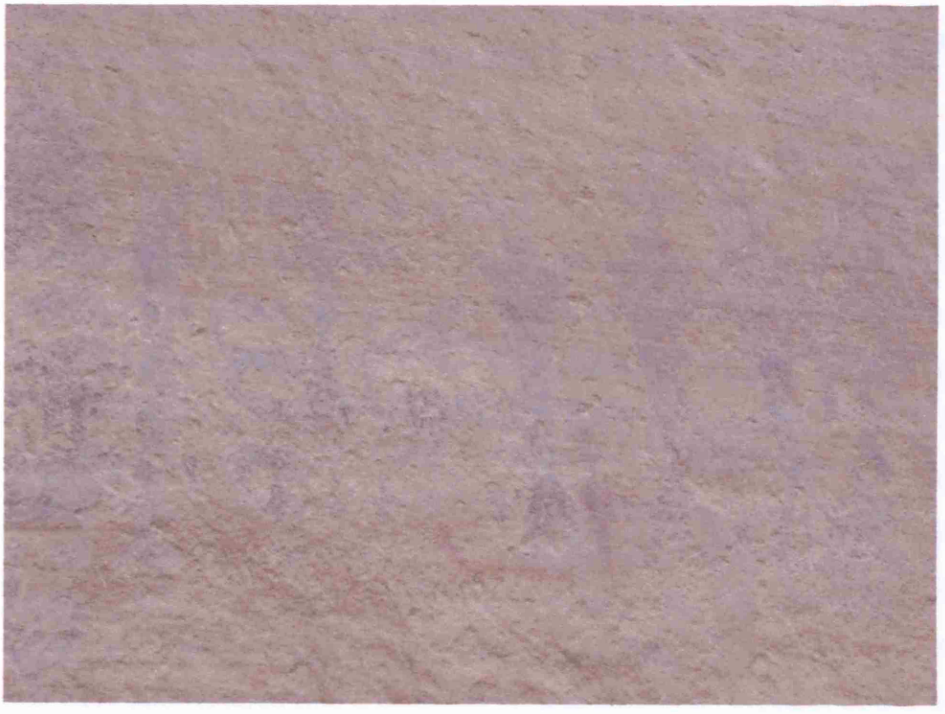

Figure 2.5 - A photograph of a rock art panel that is today very faded (site 420-1).

Figure 2.6 - An enhancement of the photograph in *Figure 2.5*. The details of the panel are visible, but at the great expense of a true perspective of the rock art (site 420-1).

Site Forms, Field Notes, and Journals

The third category of data which came from the research behind this study consists of over 700 pages of site forms which were completed in the field while in the presence of the rock art, as well as two notebooks full of field notes and self-reflexive journal entries describing my daily experiences. These documents were analyzed from several different angles. The site forms provided the bulk of the data for this study, as they contained not only statistical data regarding the rock art and the hundreds of motifs found at the various sites, but also provided a record of my experiences of moving to and being at the sites. They are the foundation of the phenomenological portion of this study. The data from these forms were later entered into a database built in Microsoft Access; that is described below.

The field notes and journals provide a very different record of my fieldwork. They do not focus on the rock art, but rather on all the other experiences I had during those few months. Some of these, like problems with my vehicle or reflections on the books I was

reading, are obviously not relevant to the study. Other elements, however, are essential. These are descriptions of my encounters with animals, with flash floods, with problems finding water, and other such experiences. These formed the basis of the section in Part III which describes the experiences of being in and moving through the landscape in which the rock art is found.

Database

The final category of data which resulted from my fieldwork is the database containing the information from the site records I completed in the field. It is formally identical to the site forms reproduced in **Appendix B**. This database, however, is extremely useful by virtue of the fact that it is indexed, and therefore searchable in various ways. By building a simple query, I can quickly produce a list of all the sites which are located at the intersection of two canyons; I can determine how many anthropomorphs there are in all the sites I recorded; or I can list all the sites which contain bird motifs *and* snake motifs. The possibilities are great. Such queries have helped produce the statistical data used throughout this study, and helped to easily and systematically explore relationships between rock art motifs, between these motifs and the rock face, and also between these elements and any other facet of the rock art site recorded on the site forms.

These data sets contain an enormous amount of information. It has been my job for the past year and a half to pick and choose what is important, and what deserves elaboration in this report. Part III is a description and analysis of the experiences of being in the land, travelling to the sites, being at the sites, and engaging with the rock art. Part IV provides a detailed exploration of the formal aspects of BCS rock art, including a description of the various motif categories, as well as motif inventories and other statistical data. Part V take the form of a synthesis, and uses case studies of various sites and groups of sites to apply the data, theory, and methods outlined in all previous chapters. Part VI sets out my conclusions, and contains some further self-reflexive comments on this study.

Part 3 - Experience

This chapter outlines and discusses the results of the phenomenological investigations which took place during my fieldwork. It explores the experiences of being in the study area, of travelling to the rock art sites, of being in and moving about the places where the rock art is found, and finally of contending with the rock art itself. While the implications of and possible meanings attached to these experiences are touched on throughout the chapter, a fuller discussion of these topics can be found in the concluding chapter.

Being In the Land

Before launching headlong into discussions of how the rock art sites in the BCS tradition are experienced, some orientation is necessary. This section is provided to introduce the reader to some of the nuances to Utah's canyon country. It begins with a general discussion of the area, noting salient points which differentiate it from other environments. From there it progresses to a discussion of scale, movement, and space, noting how experiences of each contribute to a familiarity with this land. A section on rock comes next, followed by a discussion of water in its various forms. These explorations provide a backdrop for the rest of the chapter.

Canyon Country

> *"You've got to stare at this land for a few days and shuffle around for a mile or two before entering it. It requires some familiarity, or about the time you can't find water you will find the trails fading off on naked rock around you, or disappearing into sandy draws. No idle vacations" (Childs 2001, 9)*

Every year, over one million tourists and sight-seers flock to south-eastern Utah to spend a week or two in the desert. If one were to look at this area on a road map, the draw of the region would not be revealed (Figure 3.1). The few paved roads in this area covering over 20,000 km^2 connect but a handful of small towns, the largest of which is Moab, a 'city' of 5,000 full-time residents.

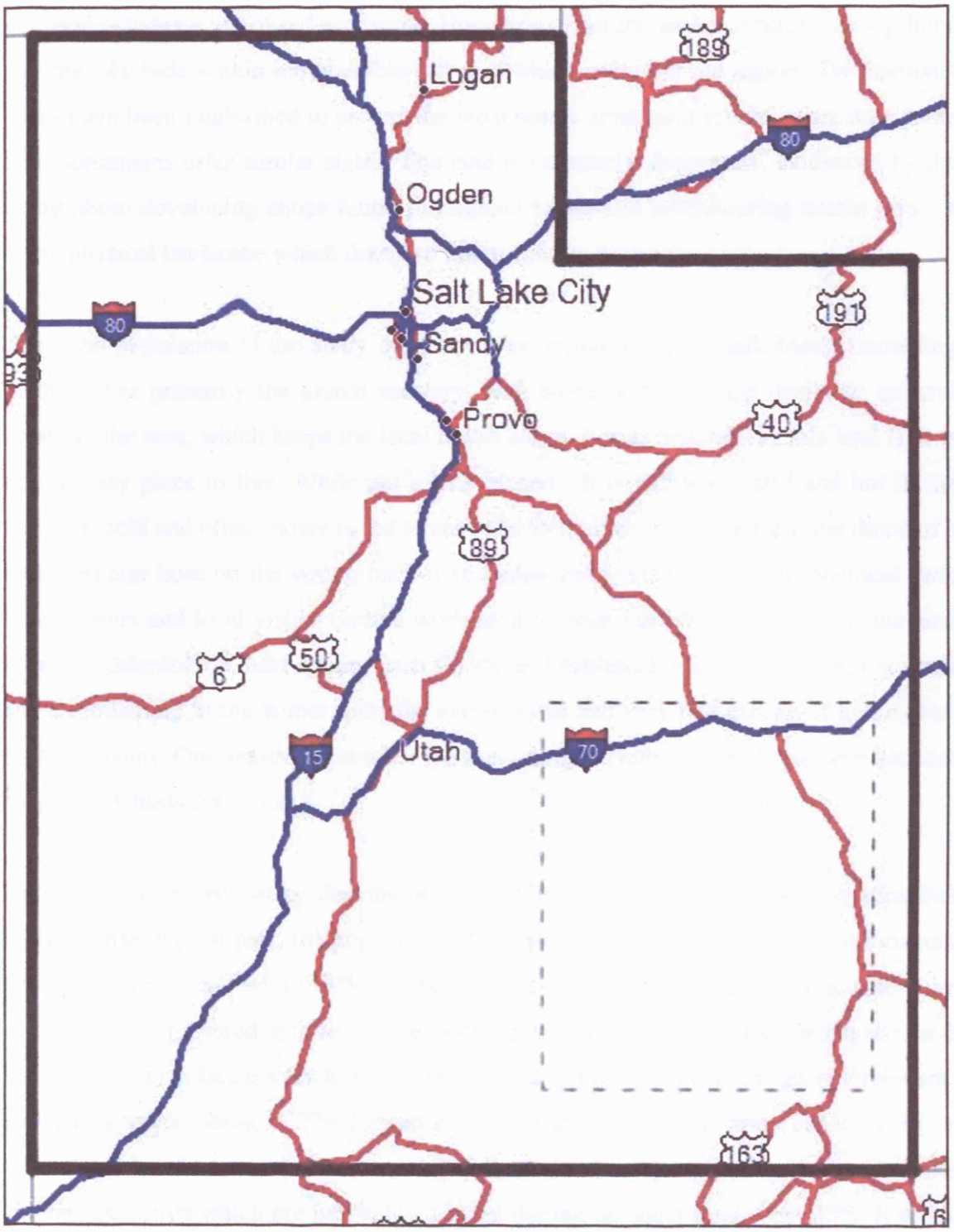

Figure 3.1 - A road map of Utah, showing the study area.

What the map does not reveal is that this corner of Utah is host to one of the most unusual and awe-inspiring landscapes in the world. Once a vast inland sea, this 'canyon country' is today a sea of red sandstone. Hundreds of natural arches, bridges, fins, pillars, and the like hide within innumerable canyons which cross-cut the region. Two national parks have been established to protect the most scenic areas, and several other state parks and monuments offer similar sights. The land is extremely photogenic, evidenced by the many photo developing shops found throughout Moab and neighbouring tourist hubs. It is the physical landscape which draws so many visitors each year.

The local population of the study area, however, remains quite small, barely exceeding 10,000. It is primarily the tourist industry, with some help from the declining mineral mines in the area, which keeps the local towns afloat. For as beautiful as this land is, it is not an easy place to live. While not a true 'desert', it is extremely arid and hot in the summer, cold and often snowy in the winter, and so sparsely populated that the threat of a burst radiator hose on the wrong back road makes every visitor cautious. National Park headquarters and local visitor centres work hard to warn tourists of the hazards the land presents: dehydration, heat stroke, flash floods, and rattlesnakes in the summer, icy roads and hypothermia in the winter, plus the ever-present and very real danger of getting lost in the canyons. One seasoned traveller tells us grimly, "Humans are absent here because they die" (Childs 2001, 13).

But what is more fascinating than the beauty and danger of this land is the estimation that in the archaeological past, the population of the study area actually *exceeded* the current population. In a time before GPS navigation, four-wheel drive trucks, 20 litre water jugs and purpose-engineered synthetic-fibre clothing, people made this land their home, and thrived in it. This fact is very hard for the modern visitor to believe. In this environment, travel is a major obstacle. The rugged plants which dot the land often boast thorns or other natural defences and look most inedible. Animals are rarely seen, apart from the ubiquitous lizards which are inevitably spotted darting up sheer sandstone cliffs. It looks as if there is no food or water anywhere. But the area *is* capable of supporting human life; it just requires some special knowledge and more than a little endurance.

In the months I spent in this area, I came to know the land fairly well. But I remained self-reflexive throughout the fieldwork period, constantly reminding myself of my position: while I did cover many hundreds of kilometres on foot, I also took advantage of a solar-powered GPS navigation device, pre-packaged freeze-dried foods, SPF 45 sunblock, and a very large four-wheel drive truck in order to survive. I relied on local water sources only when I could not carry enough on my back, and even then I was sure to filter the water before drinking it. While I got to know the physical land, and saw it as most visitors never do, I nonetheless lack a fully *lived* knowledge of the landscape. I only just touched the surface; I remain a foreigner to the canyon country. Much, however, can still be said of my experiences.

Scale, Movement, and Space

The study area where the rock art sites were documented is enormous. Distances between sites, on the other hand, are relatively small; any given site is never more than 30 kilometres from another. But this dead reckoning means little in the field, for travel in this country rarely involves a straight line from *A* to *B*. Accessing sites as little as ten kilometres apart could take a day of roundabout vehicle travel, even if one were to ignore established roads. The reason for this is simple – there is almost always a canyon in the way. The type-site for this rock art tradition, the Great Gallery (site 617-1), is found in the former Barrier Canyon (now called Horseshoe Canyon), so named because it presented a formidable barrier to early (historic) travellers in the region. Miners blasted a road down its sheer walls earlier this century, but even then movement was slow. Today, the road is deemed too dangerous for even the most experienced off-road drivers.

The situation is different for a traveller on foot. Distances can be shortened by taking more direct routes, though hand-over-hand climbing is often necessary to traverse steep canyon walls. But in keeping with a self-reflexive awareness of my situation and how it differs from that of past travellers, it must be admitted that my approach to travelling through this land – often moving from one rock art site to the next by the most direct route in the interest of documenting as many sites as possible – was almost certainly not the paradigm used in the past. Movement would have involved following established

routes set down upon hundreds of generations of knowledge about the land. These routes would offer travel not only between rock art sites, but would include other nodes such as food procurement areas, habitation sites, resource areas, permanent water sources, and so forth. Stepping back a bit and reviewing the situation in this light reveals the following picture.

A simple distinction is made here between the predominantly flat upland areas and the canyons which criss-cross these plains. These categories are simple and loosely defined. They are the rule; however, there are also exceptions. Certain places within the study area, such as the Needles District of Canyonlands National Park, or Arches National Park, do not support this distinction. They are not flat uplands engraved with canyons: the Needles District, as its name implies, is a conglomeration of sandstone spires, fins, and buttresses (Figure 3.2); Arches is similar, comprised of innumerable arches and bridges carved by wind and water out of raw stone, interspaced between great sculptures of rock (Figure 3.3). These exceptions to the general form of the local landscape have prompted these two areas to be assigned with National Park status; they are protected and offered to the public as aesthetic and pristine slices of nature. Interestingly, while rock art is found within the boundaries of both of these National Parks, the sites are usually found in peripheral, less extraordinary canyon environments, often at some distance from the arches, spires, and fins.

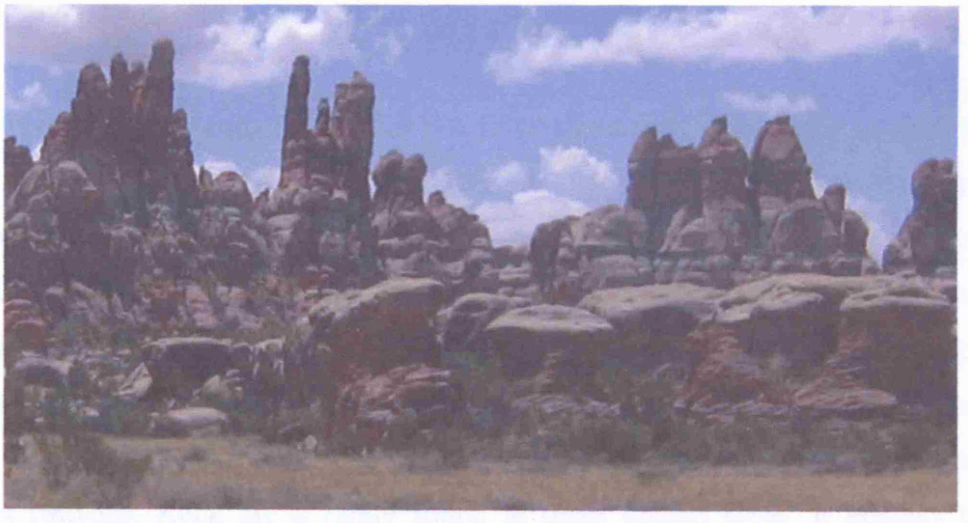

Figure 3.2 - Enormous sandstone formations called *needles*.

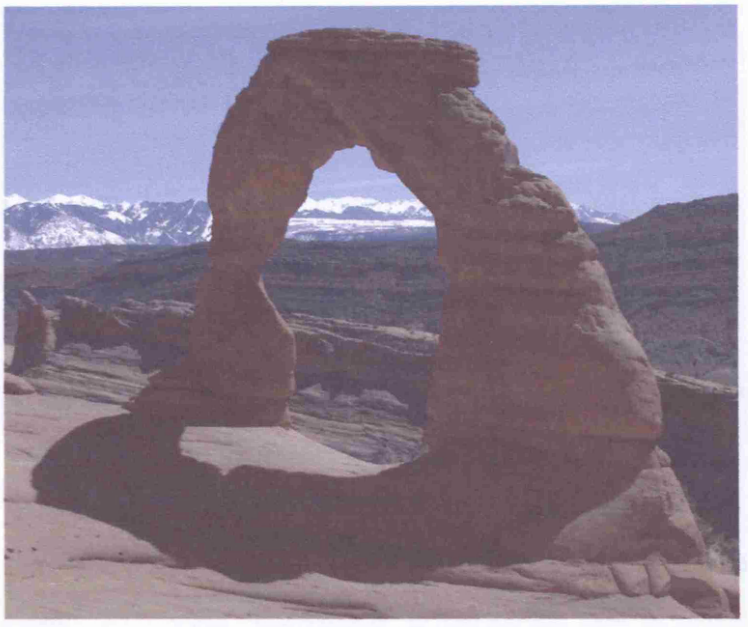

Figure 3.3 - Delicate Arch in Arches National Park.

In the uplands, views are largely uninhibited, and when large landmarks such as local mountain ranges are not visible (which is rare), the sun usually provides a reliable directional marker. Vegetation is rarely overwhelming in these areas, and walking long distances can be quite easy. Upland travel is only restricted by the presence of canyons, which often come into view only when one is right on the brink of the gorge. This 'hidden' aspect of some canyons promotes knowledge of the physical landscape by local inhabitants, to prevent one from having to turn back upon coming to an impassable canyon.

Travel through the uplands likely took the form of straight lines; for example, moving from a point of emergence out of one canyon, across the land in the direction of a landmark on the horizon, to eventually come within sight of a point of entry into another canyon. While not moving from place to place, Archaic hunter-gatherers used the uplands for gathering plants, collecting raw lithic materials for knapping, and hunting game. Archaeological sites found in upland areas are almost invariably temporary campsites from hunting parties or from a camp group moving between long-term habitation areas in different canyons. Rock art is rarely found in these upland areas. It appears that the uplands provided resources, and ways of moving from canyon to canyon.

Figure 3.4 - This map shows four square kilometres of the Maze.

The canyons offer a very different situation. Travel is restricted to one of two directions: upstream or downstream. At times this can simplify travel, for canyons are natural paths leading through the land. In this sense walking a canyon can be much like riding a subway: it is not necessary to know every twist and turn the train tunnel makes, so long as one knows which station to stop at. Not all canyons, however, are this straightforward. While the simplest can provide (often roundabout) travel from *A* to *B*, many canyons are parts of large networks consisting of several side canyons; one such network is so convoluted it has become known as the Maze (Figure 3.4). The depth of canyons in the Maze restricts access, and the area can only be entered in a few places. While the area is dominated by several large, main canyons running north-south, these canyons sprout into hundreds of side washes, branching into a seemingly endless network of canyons which, to the casual eye, all look the same. The National Park cautions unseasoned visitors, and suggests any visitors to the area be proficient with the use of compasses and topographic maps, as well as basic survival techniques. This is due to the lack of trails and roads in

the area, and the fact that it is one of the most remote places in the United States. Formally, the canyons in the Maze are not so different from others in the study region.

Canyons with permanent water are thick with vegetation, which slows foot travel considerably. Jumbles of waist-high brush interspaced between stands of cottonwood and willow reduce visibility, and restrict movement. These wet canyons also draw birds, deer, mountain lions, and other animals not often seen in drier areas. Other canyons offer impasses such as dry-falls or fallen debris, which can make it necessary for a traveller on foot to back-track many kilometres to find a different route, often via the uplands. A sudden summer storm can turn a dry canyon into a coursing river, preventing further travel or even sweeping a person to their death. But these hindrances can often be avoided by accumulating knowledge about local canyon systems. Knowing where canyons are and where they lead (as well as which ones are impassable) can certainly make travel through the land easier. In the end, a working knowledge of local canyon systems would have been a necessity. The canyons, after all, are not only used for travel – it is in these canyons that people found water and shelter; it is in these canyons that they made rock art.

Besides offering different modes of travel, the uplands and the canyons, when explored within a phenomenological framework, offer very different sorts of experiences. The vast uplands are largely uninhibited. Vegetation typically consists of low-lying grasses and shrubs. Little, if anything, is taller than a person. Mesas and buttes dot the land, but these obstacles can often be seen for tens of kilometres, and can be easily circumnavigated. There is usually no shelter from the elements in these areas which, at noon in August, can be unbearable. The uplands offer expansive views in all directions, while at the same time offering little variety in form, making it difficult to establish a firm sense of place, or even direction.

Canyons are different in every respect. They offer a much more restricted and directional view, and are clearly bounded on two sides. Further, they always contain a centre line in the form of either a dry creek bed or running water. They are directional, structurally

symmetrical, and clearly delimited. Canyons are bound places in themselves. They are defined from within by the walls on either side; from above looking down, they are negative spaces, defined by a break in the land. The canyons offer more shade, and if vegetation and water (even underground water) is present, they can be much cooler. Dry canyons, however, tend to be a few degrees hotter than the nearby uplands, because the sandstone cliffs on either side absorb and retain heat from the sun, radiating it outward into the gorge, which holds the air within it.

Moving between the uplands and the canyons, one exchanges a largely uniform and unbounded world for a small, relatively meagre but well-defined one. This transition can occasionally be gradual. Some canyons begin as a small creek bed in a field, barely noticeable. As one walks downstream, the canyon walls gradually grow around the traveller, and within a few minutes the horizon is no longer visible. More often, however, canyons start abruptly as sheer drops of tens or hundreds of metres and end in other, larger canyons. These networks of interconnected canyons form drainage systems which, once entered, can often be followed for dozens of kilometres without moving back to the uplands. Entering and exiting these requires either steep vertical climbs, or what locals call 'bench walking', which involves traversing successive layers of rock and debris in a switch-back pattern down into the depths of the canyon. This sort of transition is much more abrupt than walking into a canyon which gradually grows around you. Climbing in or out of a canyon via its walls requires a constant awareness of one's bodily movements to keep from falling. Interestingly, it is on these canyon walls, these liminal transition points between the two worlds of canyon country, where the rock art is most often found.

The canyon/upland dichotomy has been used to illustrate different modes of movement and variations of scale in the study area. While it represents an oversimplification of the landscape, it nonetheless illustrates a significant natural division in the landscape. The uplands and the canyons are two different worlds, and were utilized by Archaic hunter-gatherers to different ends. The areas between these worlds – the canyon walls – are the home of rock art, and of the caves and rock shelters which provided people with long-term habitation places. These distinctions will prove important later in this study.

Rock

It is rock that defines this land. It delimits space, creates boundaries, and controls movement. It provides shelter in the form of caves and overhangs for the animals eking a living off of the land. It is hard and old – a foundation. It is shaped by wind and water, yet tells these things where to move. It provided ancient peoples with shelter, and with material for tools: flint for knapping points, scrapers, and other useful items, and cobbles for grinding bone into awls and seeds into meal. It also provided the paints and canvases for the production of rock art.

Nearly all of the rock in the study area is sedimentary. Sandstone is dominant; other sedimentary rocks such as shales and mudstones are revealed in places, and layers of conglomerate make up a small proportion of the land. The sandstones vary in colour, texture and hardness, depending on which geologic layer is revealed at a given location. The rock layers visible throughout the study area were all deposited between the Pennsylvanian Period (320 mya) and the Tertiary Period (1.6 mya), a stretch of time which represents the last 7% of geologic history. During that period, this area of Utah fluctuated between numerous environments. During the Pennsylvanian Period, the area was a large inland sea. By the Permian Period, smaller shallow seas covered much of the area, and the land fluctuated between costal plains and near-shore sand dunes. During the Triassic, the seas had become lakes, and much of the land was covered by swamps and tropical tidal flats. The Jurassic saw the arrival of sands – massive wind-blown dunes covered the region, which would have looked much like the Sahara does today. Towards the end of the Jurassic and into the Cretaceous water returned, and most deposits from this period are marine in the north, or from rivers and tidal flats further south. The Tertiary saw the uplift of the Colorado Plateau, and down-cutting by permanent rivers and more ephemeral water sources produced the canyons visible today. Certain sedimentary layers are much more resistant to weathering than others; it is this variability that gives rise to the unusual landscapes found in the area. But given the pillars, arches, and other remarkable forms which sprout from the flat uplands, the most dominant feature is by far the canyon.

These desert canyons are not like those found in other areas. Most lack permanent water courses to account for their existence; rather, they have been carved little by little during the flash floods which rip through the land after summer thunderstorms, and their washes usually flow only with sand. They vary from narrow slot canyons, barely wide enough to squeeze through yet deep enough to block out light, to broad, deep gorges, with flat floors resembling long, meandering meadows bounded laterally by sheer, straight cliffs.

The form of the canyon depends on which geological layers it cuts through, and the origin of the deposits which make up those layers. The upper layer known as the Navajo Formation, for example, comes from wind-deposited sands, and tends to erode into soft, light-coloured, rounded domes, but can form sheer walls under the right circumstances. The underlying Wingate Formation was water-deposited, and is much more resistant to weathering. This formation erodes into red, towering, sheer cliffs, often hundreds of metres high. Between the Navajo and Wingate sandstones is the Kayenta Formation, which weathers into horizontal series of ledges, usually dark red-brown in colour. There are more named layers, each with its own characteristics and colours (**Appendix C**); importantly, some of these layers are better suited to supporting rock art than others. Ultimately, each ends up as fine red sand and silt to be carried off by the elements and deposited elsewhere, starting the process anew.

Soils in the uplands are often just a few centimetres thick, and are held together and in place by a network of fungi, cyanobacteria and lichens known as 'cryptobiotic crust'. This crust holds soil together and retains water, enabling vegetation to grow. Without this crust, wind and water would carry the soil away and bare rock would dominate. In the canyons, soils are deeper, deposited by water over millennia. But in all areas, the rock comes first, and the soil sits on top. This makes for a unique situation – rocks are found either jutting up out of the soil as mesas, pillars, and arches, or they are found beneath it, revealed by the canyons cut into the ground. Rock art is found both in the uplands where the bedrock emerges through the soil, as well as where bedrock is revealed in canyons; the latter case is dominant.

The experiences associated with being in a canyon will vary depending on the type of rock present, as well as on the shape and size of the canyon. Some basic categories can be made. Slot canyons are typically one to three metres across and vary in depth. These canyons are very restrictive. They rarely contain vegetation, and the wash bottom is usually a mixture of sand and rock. They typically cannot be traversed at any point, and must be accessed via the head or the mouth. Moving through these canyons can be difficult: they sometimes become so narrow one must literally squeeze through, and any obstacles blocking the way must be scaled. While no rock art was documented in slot canyons, at least one site is accessed via one.

Another prominent category of canyon is what is here called a 'wet canyon'. These contain permanent water courses, which vary from small spring-sourced streams to major rivers. Whatever their shape, wet canyons afford difficult travel. Vegetation is always thick, and if no constructed or well-worn paths are present, travel is slow-going. Splashing down the stream is often the quickest option, and can be comfortable so long as one's shoes are first removed. Wet canyons, because of their year-round water sources, were frequented by Archaic hunter-gatherers, and often house more than one rock art site. Moving through these canyons is an experience which contrasts with every other environment in the study area. They are always cool and shaded. The colours, sights, sounds and smells are unique. Moving water is always audible, as are signs of birds and other animals absent in dry canyons, though these are not often seen through the vegetation. Wet canyons transition quickly to the typically hot, bare desert landscape. Entering or exiting these canyons can be quite shocking. Additionally, some wet canyons exist as the result of springs, whose waters flow for a short distance before evaporating, but still create similar green environs in their vicinity. These spring-fed canyons are not as easily found as canyons with rivers and, if one is not expecting to find one, they can be surprising. Once spotted, such canyons are easily remembered, for these green oases always mean "there is water here", which is a significant sign in desert environments.

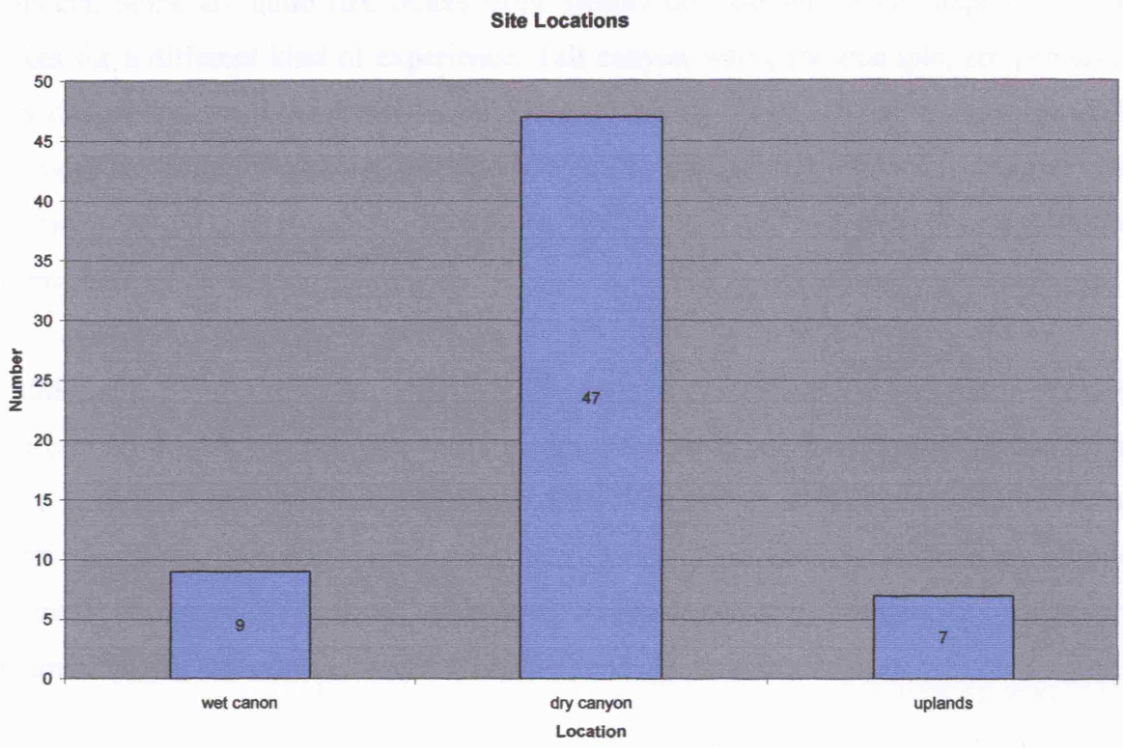

Figure 3.5 - This graph shows the number of BCS rock art sites found in wet canyons, dry canyons, and upland areas.

Interestingly, as *Figure 3.5* demonstrates, the rock art sites in the BCS tradition are located predominantly in dry canyons. This might be surprising, given the appeal of wet canyons, and the fact that they provide reliable water sources. This distribution of sites, however, reflects the fact that there are far more dry canyons than wet canyons in the study area, and suggests that no preference for canyon type was present when choosing a place to produce rock art. Archaeological evidence suggests Archaic hunter-gatherers did not to cling to wet canyons despite their reliable water sources, as the other items they relied upon for survival were spread out far across the land. These wet canyons do evidence significantly more activity after the Archaic, when people were more sedentary, and much of the rock art found in these canyons comes from these later cultures.

Within these two broad categories, canyons within the study area are not so easily categorized. Some are wide and shallow with low, gently graded rocky walls which are easily traversed. Others are narrow and deep, flanked by sheer cliffs which absolutely cannot be scaled. Some have soft, sandy floors; others are paved with stones and

boulders. Some are quite flat, others slope steeply downstream. Each shape of canyon makes for a different kind of experience. Tall canyon walls, for example, are perceived very differently in a narrow canyon than in a wide one. Sheer and insurmountable cliffs are more restricting than even the tallest scalable, sloping canyon walls. Being several kilometres into a canyon which can only be left by retracing ones steps is a very unique experience.

Additionally, the sort of rock comprising the walls contributes to the experience of being in a canyon. Light-coloured and softly-contoured canyon walls are not as restricting as sheer, dark red cliffs with hard edges and sharp lines – even if the canyons are the same width and depth. Different types of rock also reflect light and heat differently, support different forms of vegetation, and have different acoustic properties. There are innumerable combinations; some specific canyons are discussed later in the case studies.

Finally, different types of sandstone afford different experiences of movement. Hard, solid expanses of flat or gently sloping sandstone (slickrock) are easily traversed with care, unless the stone is wet or icy, in which case slickrock becomes quite dangerous. Walking through rocky wash bottoms takes time, and deliberate foot-placement is necessary to avoid turned ankles. Hiking through deep sand is utterly exhausting – it affords little support, the ground giving way with each step.

While climbing in and out of canyons, one is constantly aware of the type of rock below one's hands and feet. Some sandstones are quite soft, and a hard footfall can loose enough sand grains from the rock matrix to make a rather slippery surface. Vertical climbing requires great care when choosing handholds and footholds. Some rock is quite solid, but other types break easily under the weight of a body. This lesson is quickly learned when a seemingly solid ledge gives way under one's feet, or the nodule being used as a handhold breaks off to become just another stone.

Rocks are everything in canyon country, and the seasoned traveller never takes them for granted. They tell a person where and how travel may take place. They *are* the landscape,

and their various colours, shapes, and textures dominate the visual field. On these rocks, on the surfaces which separate the places we can go from those which are absolutely off-limits, Archaic hunter-gatherers painted, pecked, and engraved images. They were keenly aware of the rock in every shape and form. This discussion has been limited to how rocks were perceived on a perceptual level; later, possible cosmological and spiritual perceptions of rocks will be introduced. But however conceived, rocks in this arid environment were likely dwarfed by the importance of water.

Water

> *"There are two easy ways to die in the desert: thirst and drowning" (Childs 2000, xiv).*

> *"How could a place defined by the absence of water be defined by the presence of it?" (Childs 2000, 197).*

The ironies of canyon country are endless. Today, the place is dry enough to be called a desert, but it only exists as it does because of water. The sandstone is there because the area was once a great inland sea, when the land that is now Utah sat beneath the earth's equator. The water receded 200 million years ago, leaving behind a large, sandy desert. The sands ossified over time, buried over the millennia beneath successive layers of wind- and water-borne sediments, only to be later exposed, eroded, and sculpted by water. Sandstone erodes either through the brute force of flash floods in the spring and summer, or during the winter when minute amounts of water freeze in cracks in the rock, widening them slightly with each freeze, and occasionally sheering off great slabs of stone which crash into canyons or off of mesas, creating slopes of rubble at the base of every cliff. Water made this land, yet each year, thousands of visitors to the area suffer the effects of dehydration, and those who lose their way almost invariably die from lack of water.

This lack of water, however, is merely a perceived lack, most apparent to outsiders. There *is* water here; it just behaves differently than water in other places. Water sources are scattered, ephemeral, and are usually both unpredictable and unreliable. Knowing where to find water is a skill the tourists have no time to learn; the local city-dwellers, no need. Archaic hunter-gatherers, on the other hand, had a detailed knowledge of the nature of water in this land.

The surest sign of water in canyon country is the colour green. Not the muted, earthy greens of sagebrush and other low-lying desert scrubs, but rather the rich, vibrant green only seen in water-loving plants such as cottonwood and willow. Green means water, permanent water, water that has been around long enough and often enough to support rich vegetation. Green spots are only found in wet canyons and around springs. The water sources which support these plant communities are varied.

Large, year-round rivers are few and far between. The Colorado, Green, and San Raphael are the arterial rivers within the land. The waters that flow in their banks are not desert waters – they are merely passing through, coming from high mountain slopes in other states, and quietly leaving the desert behind them as they move south. Their waters are swift and muddy, but can be drunk if needed. The Green and Colorado rivers flow through massive gorges, and present formidable obstacles to long distance travel. Today there are but a handful of bridges over each. While later sedentary and semi-agricultural peoples, such as the Fremont and Anasazi, took advantage of these canyons as habitation and rock art production areas, the mobile Archaic peoples could not afford to tie themselves to the land in this manner, and had to rely on other water sources as well.

The other source of water which is revealed by the colour green is the spring. Desert springs are finicky things, and only a few are reliable enough to be placed on maps. Springs vary in output, some creating small but short-lived streams, others dripping slowly into large pools deep within canyons, in shadowy places hidden from the sun. Many come and go with the seasons. Others fluctuate at shorter intervals, the most extreme only flowing at night, when the surrounding vegetation has let go of some of the

water it absorbed during the day, and the sun is not around to evaporate the water the moment it comes out of the ground. Some springs never even expel their waters; they are used by local plants and trees before they can escape the earth. A cottonwood grove with no running water is still a welcome sight in the desert – a bit of digging is sure to reveal some water. Best wait until nightfall though. Digging during the day could well be counterproductive, if the digger's body releases more water in sweat than the digging reveals.

Another water source, similar to the spring, is the seep. While spring water comes from aquifers and underground streams, seep water originates on the surface, from rain or snow, and is filtered down through paper-thin cracks in the rock, emerging from similar cracks in canyon walls, where creeping mosses and hanging plants cling to the moist rock and make use of the meagre water source. Seeps put out so little water that a bottle left beneath it in the morning may not be half-full by nightfall.

Spring and seep water is often cool, fresh, and safe to drink. Some springs, however, flow with waters that have passed through mineral veins, and are high in various salts. Drinking from these springs can actually dehydrate a person as their body expends water in an attempt to get rid of excess salt. Springs with high salt content will support different plants, such as saltbrush, which are tolerant to saline waters. They can therefore be spotted and avoided. If no vegetation surrounds a spring, one must be cautious. Chances are the water is unsafe to drink, perhaps containing poisonous minerals such as arsenic or selenium. Edward Abbey provides useful advice:

> *"When in doubt about drinking water from an unknown spring look for life. If the water is scummed with algae, crawling with worms, grubs, larvae, spiders and liver flukes, be reassured, drink hearty, you'll get nothing more than dysentery. But if it appears innocent and pure, beware" (Abbey 1968, 146).*

Even less reliable and more difficult to find than springs are potholes. These are basins eroded out of bare sandstone, varying greatly in size, which collect and retain rainwater. They can be found on the sandstone escarpments atop mesas, or within some canyons where water recently flowed. Potholes last anywhere from a few hours to several months, depending on where they are and how often their waters are renewed. Water from potholes is often filled with life, from worms to toads to beetles. They are often warm, sometimes even hot, but usually safe to drink. While conducting fieldwork in the area, when no springs or streams were around, I camped near potholes when I could find them which, sometimes, took a whole afternoon.

Finally, there is the rain. Rivers are rare, springs and seeps are finicky, and potholes are hard to find – rain is all of these, and then some. Annual precipitation varies by altitude, but averages about 25 centimetres per year; however, the validity of this figure is difficult to judge. A primary characteristic of rain in canyon country is its high degree of localization. It can be pouring with rain in one canyon, while the next one over is hot and dry. Some areas regularly receive rain; others may go years without getting a drop. This makes statistical figures on annual precipitation difficult to assess.

Even stranger than the extreme localization of rainstorms is the fact that sometimes, rain will be seen falling from clouds, but the ground below never gets wet. I have been beneath a storm system, watching rain falling above me, but the land is so hot that the rain evaporates before it reaches the earth. These factors make it very hard to know if rain is coming, and where and when it will fall, even if storm clouds are visible. This is information that a desert traveller very much wants to know, for when the rain does come, it falls hard and fast.

Most storms will only last a few minutes, maybe as much as half an hour, before passing on. The after-effects of a storm, however, can linger for hours. I speak here of the flash floods which rip through the canyons after the more intense summer storms. "The desert is an invitation for floods. With sparse vegetation, shallow soils, exposed bedrock, intense localized rainstorms, and high relief to the land, water funnels quickly in this kind

of place" (Childs 2000, 136). Being in a canyon during a storm can be an exciting experience. Once the water touches down, it doesn't sit. It doesn't accumulate, it doesn't get absorbed by the soil – it just *flows*. Canyon walls quickly become darkened with streaks of water running down their faces. It is easy to tell where the water will make its way down a cliff face – dark mineral stains from hundreds of years of flowing water show what paths it will take.

As more and more water accumulates in the uplands, and converges into small streams, waterfalls begin to appear, cascading over the cliffs on either side of the canyon. I have taken shelter in small alcoves during such storms, only to become 'stuck' inside when a waterfall suddenly appears, falling down over the entrance to the alcove, and sealing it off from the canyon beyond. Then comes the flood. The size and exact nature of the flow will depend on the canyon, and where in the local water catchment basin the storm was focussed. I have been fortunate enough to have only experienced minor floods. On these two occasions, incidentally in the same canyon, whose many BCS rock art sites sport rain- and water-related motifs, I have seen a dry creek bed turn into a river in a matter of minutes, long after the rain stopped falling in the canyon.

Because of the nature of the local canyon systems, water becomes focussed in certain places, and a large amount of rain in just the right place can produce catastrophic floods:

> *"Canyons are basically nets that catch water. Branches and fingers and tributaries scour the land above, sending everything down, so that when a storm passes, all of its rainwater is driven toward a single point. Water can run from tens of miles down hundreds of feeder canyons, spilling into deeper and deeper, fewer and fewer canyons until the volume of the flood has jumped exponentially into one final chasm where everything converges" (Childs 2000, 239).*

Certain canyons are therefore geographically situated in such a way that they are prone to flooding. A few times a year, these canyons bear witness to great walls of water roaring

down their lengths. Perhaps 'water' is not the right word here, for these major floods consist of a viscous 'soup' of mud and debris, sweeping up everything in their path, from trees and boulders to animals, cars, and people. Every year floods take lives in canyon country.

Minor floods are not problematic. While they might bog down a truck for a few hours, once the river subsides and the sun re-emerges to dry the ground, a traveller can move on. Major floods can sometimes be avoided by knowing which canyons are prone to these disasters, and avoiding them. But floods are not predictable. Sometimes they come down from distant canyons, where storms dropped their waters hours ago. Most flood deaths occur in this fashion. Hikers are caught completely unaware, since there may be no clouds in sight when the wall of water suddenly appears, crashing down a bone-dry wash. They are just a part of the desert, one more element which makes this land what it is. I imagine that Archaic peoples, in the driest times, probably asked the powers that be for water. But they surely knew not to ask for too much, for as much as water gives towards life in the desert, it can also take.

Water is different in the winter. When the hot summer sun gives way, canyon country remains a place of extremes, but this time in a different direction. Snow often blankets the land, weaker springs and seeps cease their flow, and potholes turn to ice. Childs (2001) describes a winter excursion into Canyonlands National Park. Water can still be found in winter, he assures, hidden away in pockets and crevices of rock, but it is sometimes necessary to chip it out and let it thaw by the fire before it can be drunk.

Once again, there *is* water in the desert – a lot of water in fact – enough to support thousands of people for thousands of years. Sometimes it is subtle; other times, fierce. It can be cool and clear, or hot and stagnant; sitting, falling, flowing, emerging; full of life, or deadly to drink. Water is discussed further in subsequent chapters in relation to the rock art, and to the places where rock art was produced. But it is useful here to bring together some of what has been said about water in the desert in an attempt to stipulate

how water may have been conceived by the people who produced Barrier Canyon Style rock art.

First of all, Archaic peoples surely understood that water is essential to life in all forms. They knew they needed water, or they would die. They knew where to look for it, when, and how much they might find. But water in the desert is not so predictable; nor is it always benign. While the empirical mind sees water as inert and passive, taking the shape of its container and obeying the law of physics, an animistic worldview would likely attribute some volition to water, some life force that would describe its various characteristics. Water moves, and carries things with it. It gives life, and can take life away. It comes and goes as it pleases. It taunts, falling from clouds without wetting the earth, yet satisfies, by arriving unexpectedly in the driest of times. It is born from the earth and from the sky. It is alive.

Whether water was seen as volitional and self-controlling, or as obedient, being controlled by some other power, its movements and actions were probably considered to be deliberate. Human acts, in turn, may have been considered to affect how, when, and where water arrives. As such, water, or that which controls the water, gains a degree of respect. With this comes a set of rules, rituals, and so forth, centred on bringing water, in just the right amount, when and where it is needed most. Later, it is argued that one of the many roles played by some BCS rock art sites was to affect water in this way.

Because water comes in so many various guises, perhaps water from different sources was considered to be qualitatively different. Spring water is new, born from the earth. Having flowed through the ground, between rock and stone, absorbing the earth's energy, perhaps it was considered to be powerful. This suggestion is supported by the proximity of many rock art sites to springs, especially since those springs are often far from clear habitation sites. Rain, also new water, comes from the sky. Earth and sky are very different cosmological realms, associated with different sorts of energy. Rain falls, saturates, and renews, but also flows, converges, builds up, and destroys – a very different sort of energy than bubbling spring water might bear. River water is something

altogether different. It is also water that moves, but in a very different fashion than screaming courses of rainwater. While rock art is sometimes found near spring-sourced creeks, it is all but absent from the rivers which flow into this land from someplace distant. Perhaps this suggests qualitative differences between local waters and foreign waters. Finally, there is water that sits, found in potholes. Though originally 'sky' water, is old and stagnant, and represents a further category.

Perhaps these different kinds of water, from different sources and containing different energies, were used for different things – drinking, cooking, washing, cleansing, anointing, and so forth. There are strong associations between BCS rock art and water, which are explored later. This discussion of water in the desert is provided as an introduction to a theme which will pervade the present exploration of rock art.

Travelling to the Sites

The rock art sites in this tradition are often difficult to find; this is evidenced by the problems I sometimes encountered while trying to locate sites. Furthermore, because the geographic extent of the BCS tradition is so large, and the land is so rough and secretive, knowing where sites are means very little – they still have to be accessed, which is not always a simple task. Given this, it is surprising that the act of recording a rock art site typically begins when the researcher is standing in front of the panel, pen in hand. The standard site recording form used throughout Utah by BLM and NPS archaeologists (BLM 1990) has a space labelled "Location and Access" where one is meant to provide directions to the site. But this section is under "Part A – Administrative Data" and is only meant "to help a future surveyor relocate the site". Within this paradigm, finding and travelling to a site is considered to be a preliminary step, something that must be accomplished before the real work can begin. It is neither thought of critically, nor considered to be significant. The forms do not ask how visible the site is, or where it can be seen from. There is no concern with how easily the site is discovered, how accessible it is, how it is approached, or any such qualitative questions. Researches take it for granted that rock art sites are emplaced, and forget that it is not only the present-day

visitor who must travel to see them. These issues are addressed here, and it is demonstrated that the experience of travelling to a site warrants closer attention.

There are a few different scenarios to which the following discussions will apply. The first involves a person moving through the land for whatever reason, seeing an unfamiliar rock art site, and going to view it. The second involves a person purposefully moving through the land looking rock art, finding a site, and going to view it. The third involves specific knowledge about a site by a person who is going to view it – either the person been there before, or has been told exactly where the site is. Each of the factors discussed below – the site's visibility, location, accessibility, and approach – have different significances within each of these scenarios. The implications of this are drawn out at the end of this section.

Visibility: Then and Now

During the early stages of my fieldwork, each panel of motifs within a site was assigned a number, from one to five, which represented the degree of visibility of that panel. A visibility of five meant the panel would have definitely been seen by anyone walking down the canyon where the site is located, whereas a visibility of one meant the panel was very hard to see, even at close range, and that without special knowledge, the panel could be missed even by the most watchful eyes. As the fieldwork progressed, however, this system was abandoned. Although I had set up what I felt were rigid criteria for assessing the relative visibility of panels, I realized that it is impossible to look at a panel today, and fully determine what it looked like when it was made. There are several factors involved.

First, pigments and the rocks they bind to are not immutable. Sunlight and other elements can cause images to fade. This became clear as I found panels that are daily subjected to direct sunlight in the vicinity of panels always in the shade; those figures exposed to sunlight are faded, and more difficult to see. Still other panels represent a half-and-half scenario, and show variable degrees of fading. Furthermore, not only do pigments fade, they also change colour. The iron present in the mineral pigments is still subject to

oxidization after it has been applied to the rock, and paints can become darker, more orange, or the like. This applies similarly to the patina covering rocks – it tends to darken and change colour over time, changing the contrast between the images and the surrounding rock face. This applies most strongly to pecked or incised images, which typically become re-patinated or otherwise coloured after they were produced, thereby blending into the rock face. Water, too, can change the appearance of a panel. Minerals can leach out of the underlying sandstone when it is subjected to excessive moisture and can discolour the paintings. Water running over rocks after a rain can, after many centuries, leave dark mineral stains on the rock, which can cover and even obscure motifs. Water can also wash pigments away, leaving only faint traces of what were once bold images. As such, a faint panel with little contrast between the images and the rock might once have been prominent and more easily seen, and *vice versa*.

Second, plants can obscure panels. One recorded panel, located in a short side canyon, was completely obscured by bushes. The plants grew so close to the rock face I could not get near the panel; I had to photograph it through the branches. Another site was obscured by a substantial thicket of tamarisk, a bush that is not native to the Southwest, but was introduced in historic times. While both of these panels were not visible from the canyon bottom when I visited them, they might well have been more easily seen in the past. Likewise, panels which are today clearly seen might once have been obscured by vegetation. It is even possible that panels were intentionally painted behind bushes and trees; this cannot be known.

Finally, the land changes shape. One documented panel took some time to locate. I had only vague directions, and was looking for "a low cliff of yellow sandstone, harbouring a shallow overhang about a metre in height, beneath which is a small, half-buried panel of pictographs". The wash where I finally found the site was dry at the time, but the amount of sediment present suggests it is prone to flooding. The current stream bed runs in the side of the canyon opposite the panel, and its sandy bank has buried the images, but what the canyon bottom looked like when the panel was painted is uncertain. Perhaps the

ground level was much lower, and the panel was at eye level, more visible than it is today.

Given these factors, the present visibility of a panel cannot always be used to establish its visibility in the past. Nonetheless, there are some elements which have not changed, and these elements can significantly influence how visible a site was. The first is size: small motifs are harder to see than large ones, especially from a distance. The second is technique: paintings are easier to see than incised or abraded figures. Paint is usually a different colour than the underlying rock, whereas incised and abraded figures are the same colour as the rock. (Freshly incised figures do differ in colour from the surrounding rock, but after some years, the newly-exposed rock weathers to match the surrounding stone in colour, rendering them almost invisible). These different production techniques result in varying contrasts and therefore varying degrees of visibility. But the most significant factor contributing to the visibility of a panel is its location.

Location

Only those elements of a site's location which have an impact on the experience of travelling to a site are discussed here – questions such as why certain places were chosen over others for the production of rock art are addressed later. The relevant elements are (1) the location of the site within a canyon or canyon system (or otherwise for those few sites not found in canyons); and (2) the location of the site on the canyon wall (or otherwise).

Of the 63 sites documented for this study, 56 are found in canyons. These can be divided as follows: 43 are located somewhere in the 'middle' of a canyon; five are located at the intersection of two canyons; and eight are located in short (less than 50 metres), dead-end side canyons which branch off of larger ones. These are discussed in turn.

The sites located in the 'middle' of a canyon are found someplace along the canyon's length. These sites vary greatly in their visibility. Some are large sites situated near the bottom of the canyon, and adjacent to the natural path along which a person travelling

through the canyon would walk. Others consist of a few small figures, and are located in small alcoves high above the canyon floor, invisible from below. The relevant point regarding these sites is that they are found along natural paths which cut through the landscape. Most can be accessed from either end of the canyon – upstream or downstream. But within the canyon as a linear whole, they have no special place.

Canyon intersections are qualitatively different locations. They are nodes where two canyons (paths) meet to form a third. While not all of these sites are visible (recognizable as rock art sites) from the intersection, the intersection is visible from all of these sites. These sites have one more point of access than sites in the 'middle' of a canyon, as a visitor may approach from any of the three branches leading to the intersection.

Finally, the sites located in side canyons are different still. Side canyons must be accessed from the main canyon which they branch off from. These sites have only one access route – once the site has been visited, the only way out is to go back where one came in.

Site Type	Number of access routes
Canyon intersection	3
'Middle' of canyon	2
Side canyon	1

Figure 3.6 - Number of access routes for each site type.

Figure 3.6 shows the number of access routes associated with each site type. This assessment assumes the sites are accessed by walking along a canyon rather than climbing down to the site from above. In a very broad sense, the more access routes a site has, the more likely it is that the site will be encountered by someone travelling through the canyon. This is not a strong implication because there are other factors involved, but it is a helpful starting place.

A similar assessment of the seven sites found outside of canyons is not so helpful. Four of these sites are found on rock outcrops in the flat upland areas; one is located on a

similar rock outcrop on the top of a mesa. The remaining two are absolutely unique: one is located on a boulder in the foothills of a mountain; the other is on a rock outcrop situated on a spit of land high above the intersection of two canyons. All but the last site can be approached from almost any direction, and therefore do not have a unique number of access routes; the last site has only one plausible access route. More significantly, these sites are not in canyons, and are therefore not along 'paths'. Archaic hunter-gatherers had several reasons to walk down canyons, and presumably spent much of their time in them. Investigating the number of access routes a canyon site has therefore provides a relative probability that the site will be passed, and therefore discovered. Upland sites are 'in the middle of nowhere', so different reasoning has to be applied to these sites.

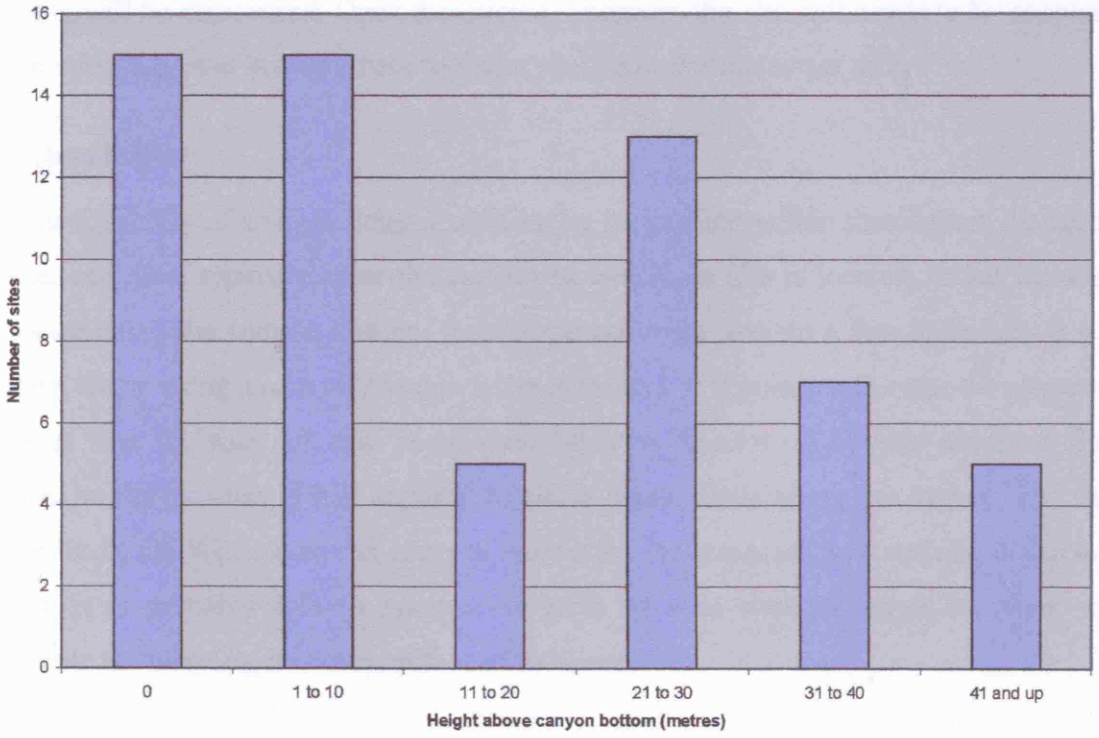

Figure 3.7 - Height of sites above the canyon bottom.

The second element of a site's location which has an impact on the experience of travelling to a site is where on the canyon wall the site is located (we will set aside the seven upland sites for the time being). The graph in *Figure 3.7* shows the height of the

sites above the canyon bottom. The first column represents the 15 sites that are located at the bottom of the canyon, and are viewed by either standing in the dry wash or quite near it. The remaining sites are some distance above the floor of the canyon. Generally, the higher up a site is, the more difficult it is to see, even if the figures are large. Also, higher sites tend to be harder to access because climbing is always required. There is a general downward trend in the number of sites as their height above the canyon floor increases, with the exception of the 11 to 20 metre range. This discrepancy cannot be accounted for; perhaps it is merely a result of the nature of my sample.

The location of a site within a canyon, and its height above the canyon floor, both play a general role in determining how visible a site is. The more paths that pass by a site, and the more easily a site can be seen from the bottom of a canyon, the more likely it is that the site will be discovered. Once discovered, however, the site still needs to be accessed. Even when a person knows where to find a site, he or she has to get to it.

Accessibility

The accessibility of a site is determined first by its location within the canyon. To access a site, one must typically enter the canyon in which the site is located, travel for some distance along the canyon bottom, then climb up to the site. In a few instances, if it is known where along a canyon's length a site is located, it is possible to enter the canyon at a point near the rock art site. Most sites, however, cannot be directly accessed from above, so the traveller is still required to climb down, move along the canyon, and then climb back up. While canyons seem to have been the locus of most activity in Archaic times, it is probably safe to assume the rock art sites were accessed via their host canyons; the canyons, however, still need to be entered.

The number of ways to enter any given canyon depends on several variables. In some areas, like the San Raphael Reef, canyons cut into a landmass which rises above the surrounding plain, and are accessed by walking from the plain into the mouth of the canyon, which slopes gradually upwards. Other canyons can be entered easily at their head, in which case travelling to the part of the canyon where the site is located only

requires walking down a gently sloping stream bed. In other cases, canyons start abruptly, and end in larger, deeper canyons. Entering these canyons generally requires one to climb down into them. The variables affecting the nature of the climb include the depth of the canyon, the slope of the walls, and whether the walls are solid rock or composed of loose stones. The climb down into a canyon can be straightforward, offering innumerable possible routes from different starting places. In the most extreme cases a single canyon may only be accessed from one or a few starting points, and from these, via very specific routes. Of course, the abilities of the traveller do affect this, so some routes are not available to everyone.

Once in the canyon, one must walk up or down its length to the vicinity of the rock art site. This step is usually straightforward but can at times require climbing up or down dry-falls, or over obstacles such as boulders or fallen trees. Sometimes canyon floors are quite rocky, and the easiest path is actually not along the dry wash at the bottom of the canyon, but along a bench part of the way up one of the sides. The synaesthetic qualities provided by different sorts of canyons will determine the experience of walking along the canyon floor, as was discussed in the previous section.

Eventually, the traveller will come to a point in the canyon which is adjacent to the rock art site. For those sites located at or just above the bottom of the canyon, the journey is now finished – these sites are the most accessible. For those sites located some distance above the canyon floor, a climb upwards is now required. Here, the visibility of a site comes once again into play. If the rock art can be seen from the bottom of the canyon, what remains is to choose a path that leads up to the site. The complexity of this task depends on the terrain, but it is typically straightforward. Losing sight of the panel along the way can complicate matters, but at least one knows generally where to move. If the art cannot be seen from the canyon floor, some clues might prove helpful in spotting the site, such as an alcove or large flat rock face where art is likely to be found. Some exploring might be required to locate the decorated panel, but at least one knows to start moving up.

The climb to a panel can be tricky. In many canyons, the sheer vertical walls capable of supporting rock art do not begin at the canyon's floor, but rather at the top of a talus slope, comprised of fallen rock and debris that has built up over centuries of erosion. Many rock art sites are located at the top of talus slopes, where the canyon walls begin their upward trajectories. Talus slopes vary in size and composition. Some are small and easily scaled; others extend for tens of metres before the cliffs are reached. Talus slopes of large boulders, which can range in scale from furniture-sized to room-sized, slow down travel and require careful planning to traverse. Slopes of smaller material are often unstable, and great care must be taken not to dislodge too much debris, thereby losing one's footing and possibly tumbling back down to the bottom of the hill.

Another common spot to find a rock art site is along a bench or ledge which runs along the canyon wall, parallel to the canyon itself. The location of these benches varies; some are low, others are extremely high above the canyon floor. Accessing these benches typically requires first climbing the talus slope to the base of the cliff, then ascending the cliff, hand-over-hand, to the flat bench top. Often, a canyon wall will have several successive benches. These can sometimes be ascended like great steps; other times it is necessary to traverse them in a switchback pattern, walking left along one until a spot is found to climb to the next, then turning to walk right along this one, and so forth.

There are a handful of sites I documented which I personally could not access. Part of this is a result of timidity – because I was always alone in the field, I took care when climbing, never pushing myself to the full extent of my abilities, since a fall resulting in a broken leg would likely have proven fatal. In one instance, I recruited a climber friend who went to the site for me, and shouted down descriptions of what he saw. Other sites I could not access due to changes in the land. In one case, the cliff below the panel was severely eroded, and it appeared that while the site was once accessible, today the rock will not support the weight of a person. Other sites have simply seen too many modern visitors, and the route to the rock art has been worn down beneath so many hundreds of pairs of boots that the site is no longer safely accessed. Many of these sites, it can be assumed, were once accessed more freely. There is one site, however, appropriately

called the High Site, in which the paintings are found several metres above the highest place a person can possibly stand, and are impossible to access without technical climbing equipment. Most agree that the shape of the rock has not changed significantly, and it is speculated that ladders or some form of scaffolding were used to produce the art.

Archaic hunter-gatherers, having spent their entire lives in and out of these canyons, were adept climbers, and were aware of the limits of their abilities. Sites that presented problems for me might have been easier to access for them. I am restricted by the nature of the English language to say "this site is easy to access, while that site is hard to access". These are, when taken out of context, qualitative judgements, which describe more what an experience *is like* than what the experience *is*. The best we can do is to attempt to understand these assignments of ease and difficulty of access within a closed system relative to other sites, rather than in reference to any subjective applications of judgement. The instances of 'easy', 'difficult', and other such adjectives found herein should be understood in terms of superlatives – 'easier' and 'more difficult' – which are drawn relative to each other.

Journeys

For most modern people, a visit to a rock art site is an event. While some sites take the form of roadside attractions, and are visited on a whim by passing tourists who need only step out of their car to experience the rock art, most sites today require real work to reach. A person wishing to visit a rock art site must therefore set out on a purposeful journey, which starts from a hotel room, campground, or trailhead, then drive or hike towards a goal. Indeed, each site documented in this study represents the end goal of a purposeful journey which I undertook during my fieldwork, aside from a few sites which were stumbled upon while I was headed elsewhere. While Archaic hunter-gatherers lived in this land, and their daily activities brought them closer to these rock art sites than do those of the average modern visitor, we often forget that a visit to a rock art site by an individual in the past must, too, have taken the form of such a journey.

A visit to a rock art site in the past might have been a well-planned journey taking a person far afield, following canyons for dozens of kilometres, perhaps climbing to the uplands occasionally to cross over into different canyon systems. Other journeys may have taken the form of a small and spontaneous side-trip by a party heading home from a hunting foray. The journey may have begun from a cave where the person was living, or perhaps it branched off from another path which was leading them elsewhere. Whatever the particulars of the journey, at some point a person changes direction and sets out towards a rock art site, both mentally and physically. From that moment, when a goal was chosen and the journey began, several things changed.

First, a person's movements become more restricted while progressing towards a specific place in the landscape. This was explored briefly above. The severity of these restrictions depend on one's distance from the goal – more paths are available to choose from when a person is 10 kilometres from a site than when a person is 10 metres from a site. If a person is travelling to a site in the middle of a canyon, one can approach from either direction, while those sites in side canyons can only be approached one way. When a person is in the immediate vicinity of the site, ready to begin the climb upwards to the painted rock face, freedom of movement is restricted even more, sometimes to a single path. The producers of a site, by choosing to put rock art sites at certain places in the landscape, can utilize these constraints to force visitors along a given path. The features of this path can partially constrain the physical movements and perceptions of the visitor. These constraints result in specific experiences, repeated by every visitor; such experiences can be the seat of meanings. Consider, for example, sites which require climbing to reach. Even when several possible routes are available from the canyon floor upwards to the site, one must still move up, and upward movement might have held metaphorical significances for Archaic peoples.

A second element which changes when a person sets out towards a rock art site is rather more subjective. If a person has been to the site before, their experiences during the journey will be structured by expectation and memory. They will hold a mental image of the site, and of the path leading to the site; attached to that will be memories of their

previous travels along the path and within the confines of the rock art site. If a person has not been to the site previously, then expectation will be replaced by anticipation, which will be structured by stories they have heard about the site and its location; in this latter case, memory also plays a central role. A person travelling to and being at a new site will experience physically what was previously known only through narrative. Expectation and anticipation will be fulfilled upon arrival at the site.

Expectation and anticipation can change the focus of one's perception. If the journey to a site is ritually-structured, and the purpose of the visit involves accessing the sacred, then seeing certain things or moving in certain ways will likely highlight the metaphorical associations and cosmological significances of those objects and movements. For example, a herd animal encountered during a hunting trip will have a different significance to the traveller than the same animal seen by a person travelling to a sacred rock art site to ask the powers that be for plentiful game and success in hunt. Similarly, the significance of climbing upwards will be different for a person exiting a canyon to gather food than it is for the same person climbing towards a sacred rock art site to take part in ritual activities. Both involve sacrifices of time and effort, but to different ends.

If we consider travel to a rock art site in terms of pilgrimage, more possibilities arise. We often think of pilgrimage in terms of travel through unfamiliar lands towards a historically and spiritually significant place, but the structure of pilgrimage can be aptly applied to shorter journeys, closer to home. An Archaic person travelling to a rock art site will not necessarily experience the explicit confrontation with the new, which often structures what we think of as 'pilgrimage', but certain other elements remain. "The experience of pilgrimage, rather than being a static object or representation, involves not only movement through space but also an active process of response as the pilgrim encounters both the journey and the goal" (Coleman and Elsner 1995, 206). For the pilgrim, in other words, the journey is as significant as his or her arrival at the sacred site. Movement through the landscape takes on a teleological structure, not only in terms of directional, goal-oriented movement, but also in terms of intentionality. Thus movement through a canyon for the purpose of visiting a ritualized visit to a rock art site will be

structurally different than movement through the same canyon for mundane reasons. The metaphorical resonances of the journey might involve rite of passage, social or spiritual transformation, or a quest for a transcendent goal (Coleman and Elsner 1995, 6).

Thinking in terms of pilgrimage also leads us to consider a person's return home from a rock art site. Pilgrims bring back with them not only memories of their encounters with the charisma of the sacred, and of the concretized forms of their belief system which comprise the sacred site they visited, but relics, too, are often carried home – tokens of their visit, proving they were there, and serving as memory aids, as physical manifestations of the sanctity of their journey and of the place they visited. Many BCS rock art sites evidence the removal of stone from the decorated surface, or from surrounding stone faces, in the form of small basins ground out of the rock. Perhaps these ground basins bear witness to the removal of such tokens.

These ideas suggest we look closely at the ways in which a site may be accessed, at how visible it is and from where. In the following examples, and in the case studies in Chapter V, the path(s) leading to a decorated rock face are considered to be a part of the rock art site, which are just as important to the significance of the place as the images.

Examples

There is enormous variability in the visibility, location, and accessibility of the sites in this tradition. Some detailed examples are presented here to bring these themes together and provide a clearer picture before conclusions are drawn. The first example is the Great Gallery, a site which is highly visible and easily accessed. The Alcove Site, our second example, is not visible from the canyon floor, and is difficult to access. The third example, just called 'A High Site', is quite visible from below, but quite difficult to reach. The final example is a site very easy to access, but the art is not easily spotted. Each site is presented in terms of its visibility and accessibility, and ideas are given regarding the possible significances of the paths which bring visitors to the sites.

Example 1 – The Great Gallery (site 617-1)

The Great Gallery (Figure 3.8) is the largest site documented for this study. It is located in Horseshoe Canyon, formerly called Barrier Canyon, and is the 'type site' which defines the Barrier Canyon Style rock art tradition. The section of Horseshoe Canyon where the Great Gallery can be found is broad and deep, with a flat sandy bottom. There is a variable seep about a kilometre downstream from the site, and the presence of cottonwoods throughout this portion of the canyon suggests underground water is present close to the surface. This canyon is also known to be prone to major flooding. Though quite green, Horseshoe Canyon is not considered to be a wet canyon, because it lacks permanent running water. Several large caves throughout the canyon show evidence of long-term habitation; Cowboy Cave is located within this drainage, a long day's walk from the Great Gallery. Horseshoe Canyon was likely frequented by Archaic peoples, not only because of its important resources, but also because it provides a clear and easy path from the Green River to the highlands overlooking the Maze District, another important rock art area.

Figure 3.8 - The Great Gallery. The figures in the light-coloured arch to the left are two metres tall.

There are a couple of natural access routes into the canyon within a few kilometres of the Great Gallery, each via a short side canyon, but the canyon walls themselves cannot be scaled within several kilometres of the site in either direction. Further upstream the

canyon multiplies, and is fed by numerous smaller canyons, many of which are quite accessible, providing several easy routes (but long walks) to the site. Downstream from the Great Gallery the canyon becomes deeper and more difficult to walk through; it finally meets the Green River gorge approximately 20 kilometres from the site.

Once in the canyon, the site is very easily accessed. The photograph above (Figure 3.8) was taken while standing on the floor of the canyon. Though the canyon is a few hundred metres wide at this spot, the site is large and highly visible, and any traveller moving up or down the canyon would see it. To view the images up-close, one must climb onto a substantial ledge at the base of the panel. It is about three to four metres tall, and can be seen in the photograph where the shaded wall begins. The ledge may be accessed via a short climb to the far left of the panel, about where the tree is. This is the only point of access; the rest of the ledge cannot be scaled. It is not necessary to climb to the ledge to see the images, as they are visible from below, but some details in the figures cannot be seen clearly from a distance.

The Great Gallery is one of the most visible and accessible sites in this tradition. The figures themselves are quite large, most two metres or more in height, and the main panel extends for 50 metres along the canyon wall. This site is easy to find, easy to get to, and would have been seen by people travelling down the canyon, even if the site was not known to exist. Furthermore, the area in front of the panel is large, and the place could hold at least 100 people. The canyon bears evidence of extensive and sometimes long-term habitation and use – this, along with the site's location in an accessible and well-placed canyon, and the fact that the site itself represents dozens of separate painting episodes, probably over a long period of time, all suggest the site might was used for seasonal gatherings of different bands, for economic, social, and ritual purposes.

If this is true, it holds implications for the significance of travel to the site, as such large-scale aggregations would have been important to Archaic hunter-gatherers on several levels, and travel to the place would have been organized, planned, and socially, economically, and ritually important. Even if this site was not used for such purposes, it

was certainly used often, as evidenced both by the nature of the rock art panel and by the archaeological remains in the vicinity. The accessibility of the site would permit anyone to visit it. The number of ways the site may have been approached suggests travel to the site was not so much constrained by the physicality of the land, but rather by the social and other significances of the visit.

Example 2 – Alcove Site (417-1)

This site is located in a fairly short canyon which is easily entered at either end, and there are no major obstacles which prevent travel through the canyon. Furthermore, the canyon may be entered from several places along its length. From this perspective, it would seem that the physicality of the land places no constraints upon a person visiting the site, that it may be approached from one of several directions. The site is significant, however, because it is one of the few sites in the tradition which appears to have a 'right way' to travel in order to access it. One path sticks out from the rest, and it will be argued that this path was followed by people travelling to the site.

The site consists of about 30 small painted figures found on the ceiling of a wide, low-ceilinged alcove, situated about 50 metres above the floor of the canyon (Figure 3.9). The alcove can be seen from the canyon floor, but the rock art cannot. The ascent to the site involves walking/climbing up a rather steep stretch of smooth sandstone to a place high above the canyon floor, then traversing across a very narrow bench to the alcove. The bench is awkward because the ceiling above it is low, and the bench itself too narrow and steep to walk across. One must actually sit on the ledge, facing a substantial and sheer drop, then 'scoot' across. This is the only way to reach the site. While the point of ascent to the site, the place at the canyon bottom where one must begin to climb, can be approached from several directions, one route stands out because it is via a 'slot canyon', which are fairly uncommon.

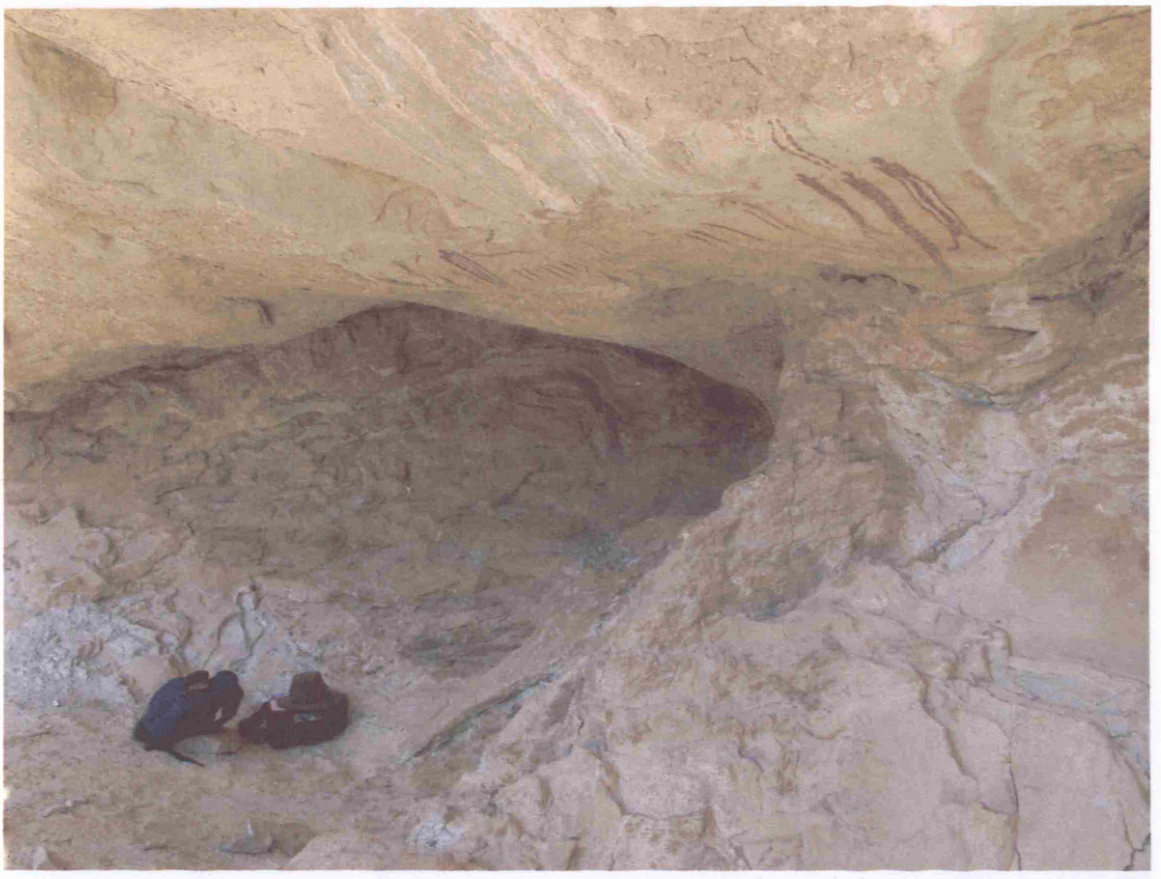

Figure 3.9 - The Alcove Site. The paintings can be seen on the ceiling. Note the author's bags and hat on the floor of the alcove for scale.

The journey begins in a wide and shallow canyon just over a kilometre from the site. From there, one walks into small, unassuming side canyon which enters the shallow canyon perpendicularly. As one follows this side canyon, the walls gradually become higher, and the path more defined. Eventually the walls become nearly vertical, and one is walking in a slot canyon with a sandy bottom several metres deep and less than a metre wide. Visibility is severely reduced at this point, and there are places, such as the spot in *Figure 3.10*, where the path is very clear. After walking for several minutes, the canyon suddenly opens up, becoming a wide and very deep gorge. Shortly after this change in one's surroundings, looking right one sees the only point of ascent to the Alcove Site. After climbing the slickrock and traversing the ledge, the site is reached.

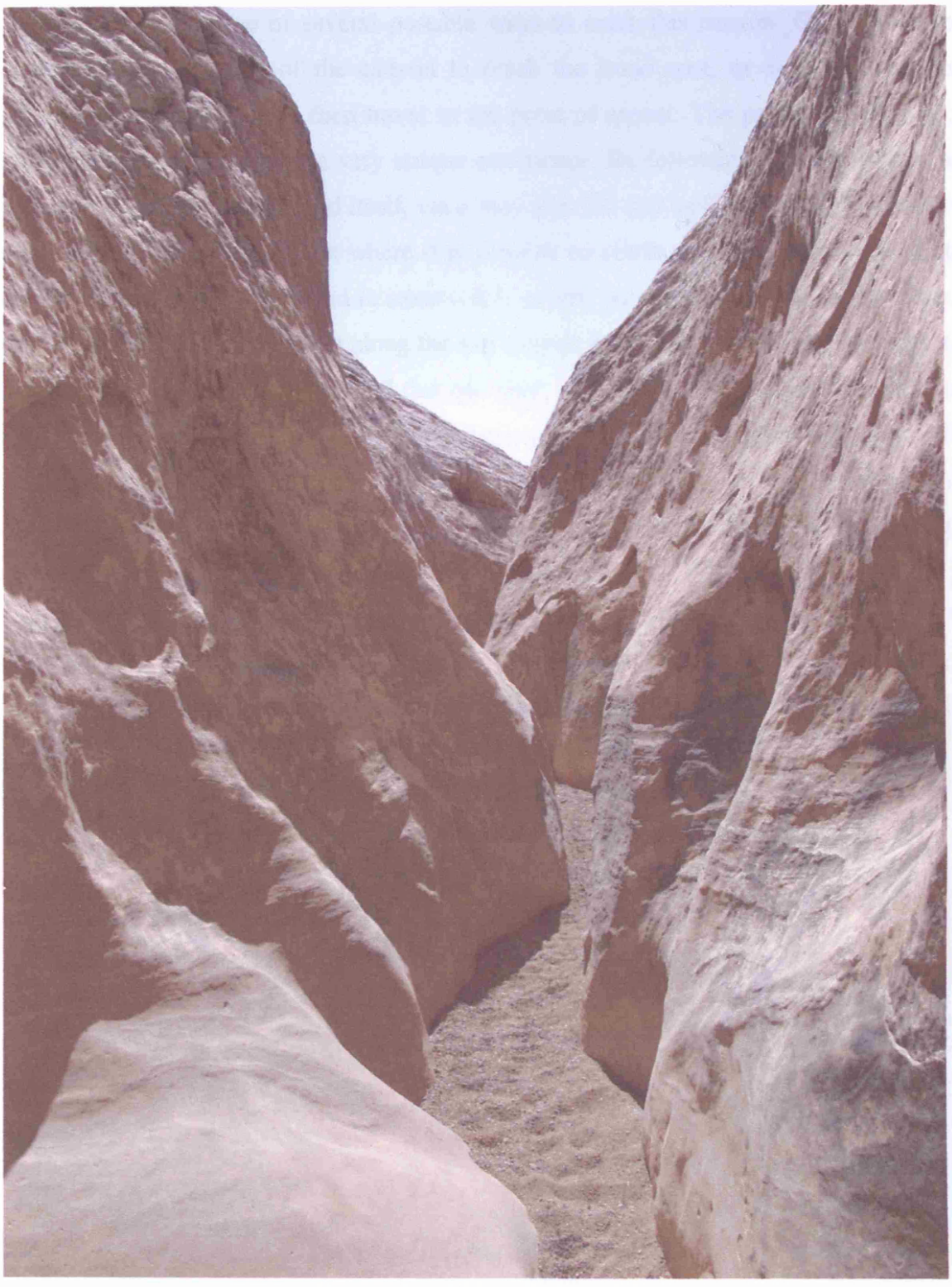

Figure 3.10 - The slot canyon leading to the Alcove Site. The walls are five or six metres tall.

Again, this is only one of several possible ways to enter this canyon. One may hike downhill from the head of the canyon to reach the same spot, or enter the canyon somewhere along its length then travel to the point of ascent. The path just described, however, offers the traveller a very unique experience. By following the slot canyon, a person is in fact led by the land itself, via a very specific and well-defined path, directly to the only point in the canyon where it is possible to climb up to the alcove. The slot canyon is a journey materialized in stone – it is a clear path, which acts as a guide from one place to another. Movement along the slot canyon is forced and restricted. So, too, is the view – plain rock and sky are all that one sees, until the slot canyon gives way to an open gorge, at which point the restrictions governing the traveller's movement and view give way to freedom of movement and to variety in form and colour. The slot canyon is liminal in this sense, it is a path which limits both movement and perception, giving a traveller following it few choices until the goal is in sight.

Figure 3.11 - Some of the rock art encountered in the alcove.

A person led by the slot canyon to this site would experience travel along what would appear to be a purposeful path, one which leads to a goal. The restricted movement and view in the slot canyon would likely heighten the traveller's anticipation of what might lie ahead. After passing through the slot canyon, he or she must then climb to the alcove, a task that is both difficult and dangerous. Once there, the art they would see is dominated by polymorphic figures, and the panel bears an overall theme of transformation (Figure 3.11). The liminality of the slot canyon goes hand-in-hand with the themes in the art. Perhaps this site was used for rite of passage rituals.

It may be argued that the artist(s) chose this alcove for the production of rock art because of the way in which it may be approached. The producers of BCS rock art clearly preferred to put images on vertical surfaces, but the alcove has no back walls to paint on, as the floor slants steeply upwards towards the back of the alcove, and gives way to the ceiling with no vertical transition. Moreover, the ceiling where the images are found is very soft and crumbly, and is not well suited for supporting rock art. The site is difficult to reach, and because the art cannot be seen from below, a person travelling to the site must either know its location, or be intent on exploring the area for rock art. If the slot canyon were not there, I believe it likely the rock art would not be there either.

Example 3 – A High Site (site 429-3)

This site is located in a wide, deep 'canyon'. The inverted commas indicate that it is not a true canyon, carved by water, but rather a large crack in the bedrock, with a flat sandy bottom, which is easy to reach and easy to walk through. Once in the vicinity of the site, the rock art visible from the bottom of the canyon, but requires considerable and careful climbing to reach. The site consists of 17 large anthropomorphic figures, painted in one panel approximately 10 metres wide by three metres tall. The site is located about 40 metres above the canyon floor. The decorated panel can be seen from the canyon bottom, and recognized as rock art, but the figures cannot be discerned, nor can any detail be seen, from that vantage point (Figure 3.12). To properly examine the panel, the cliff must be climbed.

The ascent starts where the flat canyon floor meets the cliff; there is no talus slope here. One must begin climbing about 20 or 30 metres to the left of the panel, then ascend a series of benches in a switchback pattern, working gradually to the right, moving up to the highest possible point. There is only one route, and it takes some time to discover. Strong arms are required to literally pull oneself up to the next bench in a few places. Once at the top, one is standing at the base of a large flat face decorated with rock art.

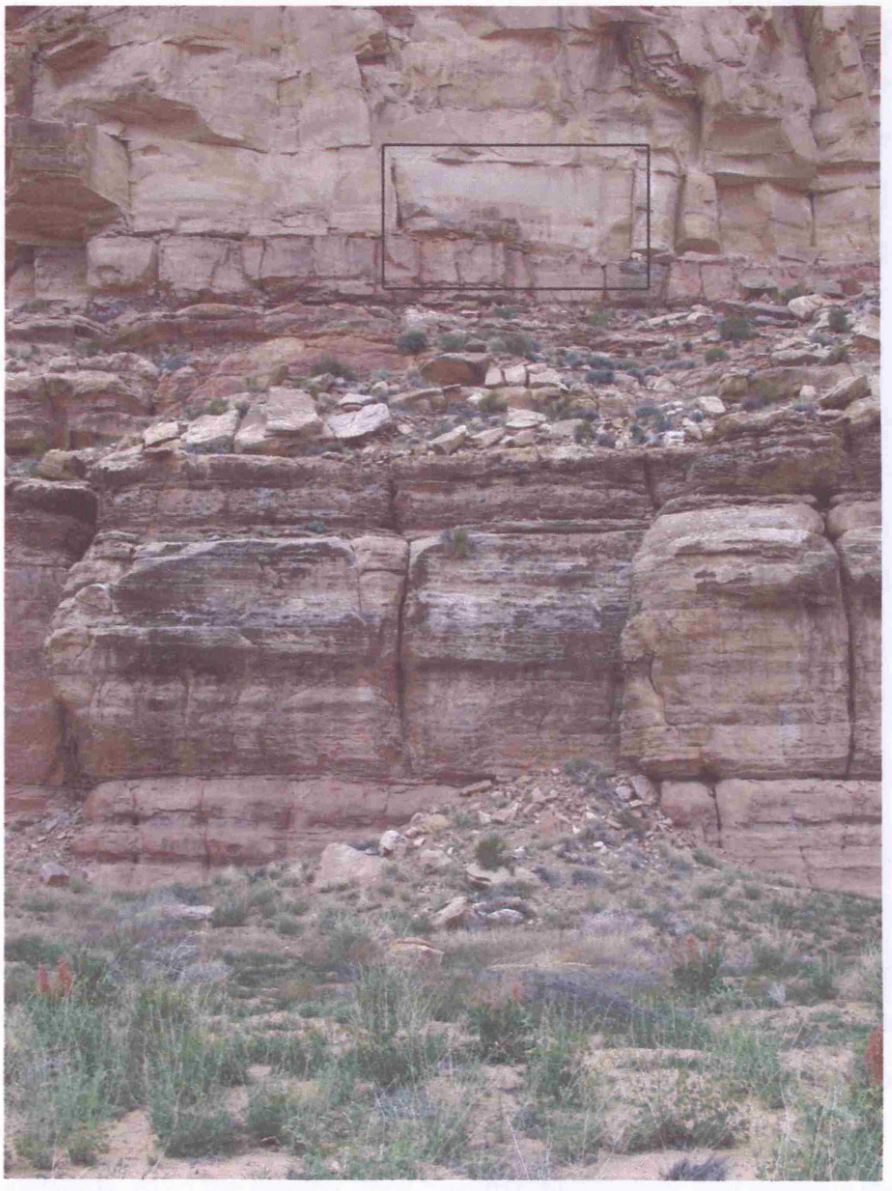

Figure 3.12 - The decorated panel is outlined with a black rectangle. The distance from the bottom of the cliff to the bottom of the rectangle is approximately 35 metres. Today, the images are mostly obscured by a thin layer of translucent calcite left by water running over the decorated rock face.

The highest ledge, just below the panel, is today quite eroded and dangerous to traverse; however, it is the only point from which the details of the painted figures can be seen. At the same time, because the motifs are about two metres tall, they are very hard to see *as a whole* from this high ledge, because the viewer is standing directly in front of the images, and is unable to step back for a better view. One lower bench offers a better overall view of the panel, but from this distance it is already difficult to see the details in the images. It therefore seems that perhaps this panel was meant to be viewed from the bottom of the canyon, but while it can be seen from below, the details cannot be discerned, and the figures are difficult to make out. This is a puzzling site, because no single vantage point offers a good view of the figures – either the whole panel can be seen but details are not visible, or the details can be seen at the expense of losing an overall view. This dichotomy is present at many BCS sites and will be explored further in later chapters.

Travel to and through the canyon where this rock art site is found presents no problems, and a person wishing to view the rock art site from below would not face many constraints structuring their travels. To view the site up-close, however, requires a strenuous and dangerous vertical climb. Moreover, there is but one route up the cliff to the panel, so every person wishing to make the climb must follow the same route. Once the climb begins, the rock art remains hidden, with once exception, when part of the panel can be seen. Once the climb is finished, the panel is again visible, and from this close perspective, the finer details of the images can be discerned.

The artist(s), in choosing this site, determined both *how* the art may be accessed, but also *who* may view certain elements of the rock art. Not everyone would have been willing or able to make the climb to the site, so the finer details in the images were not available to all individuals. Finally, the significance of the climb – the vertical ascension required to fully experience the rock art – involved not only an element of danger, but might also have been metaphorical. Accessing the site therefore involved risk, effort, time, and movement upwards, from the canyon floor towards the uplands, and towards the sky.

Example 4 – Centipede Cave (site 403-3)

This final example is a site which would have been accessible to nearly anyone, but the art found there is quite easily missed. The site is in a canyon which can be entered at several places along its length. The canyon empties into a broad valley, and can be freely accessed via its mouth. There are eight BCS rock art sites in and around this canyon. Interestingly, the canyon today is near a major road, there are several public campsites at its mouth which are typically occupied by dusk, and the canyon is frequented by hikers and quad bike riders, but most visitors to the area never notice the rock art. All eight sites are fairly accessible, but none are very visible from the canyon floor.

Figure 3.13 - Centipede Cave. The arrow points to the location of the motifs shown in the inset. The other figures are in the same area. The largest figure shown is 40 centimetres tall. The height of the arrow in the picture is approximately 1.5 metres.

The site in question consists of four small painted anthropomorphic motifs and a few other figures, all found on the rear wall and ceiling of a large alcove (Figure 3.13). The alcove is just a few metres above the canyon floor, and can be walked to with ease. There are always fresh footprints in this alcove every time I have visited it, but they are not found near the rock art. The images are in the back right corner of the alcove, where the ceiling is quite low; a person must crouch, then look upwards to view them. A few

figures are on the back wall, but most are on the ceiling above the viewer. Without prior knowledge or careful searching, the art is easily overlooked.

Access to this site is unrestricted, as the canyon may be entered via many paths. One may reach the alcove from either upstream or downstream, and the alcove is easily entered. The art, however, is somewhat hidden from view, even from a person standing close to the images. This, in a way, restricts the accessibility of the site, because the visibility of the art is reduced to a singular view, one which requires an unnatural posture be adopted. Travelling to the site is easy, and so too is viewing the images, but finding them is not. A person lead to this site would, without special knowledge, not find the art immediately. This restricts access to the site in a different way than placing the rock art high on a cliff, or in a hidden side canyon.

Implications and Conclusions

Having reviewed several elements which can constrain a person's experiences when travelling to a rock art site, the implications of these can now be explored. To summarize what has been said, it is impossible to precisely determine the past visibility of a rock art site due to various environmental factors; however, it can be said that the location of a site clearly played a role in determining how visible the site was. A site's location also governed how the site was accessed. It was generalized that sites close to the canyon floor were more visible and more readily accessed than sites higher up. The first two examples confirmed this. The Great Gallery from *Example 1* is situated close to the canyon floor, and is both highly visible and easily accessed. *Example 2* described a site high above the canyon floor, which is neither visible from below nor very accessible. The remaining two examples, however, show that this is indeed a generalization. *Example 3* introduced a site high above the canyon floor which, though difficult to reach, is quite visible from below. The site in *Example 4* is located near the floor of a canyon, and is easily accessed, but the art is invisible from the bottom of the canyon. There is great variability across this rock art tradition. In fact, only about half (25 of 56) of the rock art sites found in canyons are visible from the canyon floor, and these sites vary considerably

in height. In the end, generalizations will not suffice – sites must be dealt with individually because of the variables involved.

What, then, may be said of these elements, of the visibility and accessibility of rock art sites? Do they remain significant if the generalizations drawn from them are not applicable? The short answer is 'yes'. Although they have to be dealt with on a site-by-site basis, they say something about the artists' intentions, and how the artists acted through his or her choice of place to influence the visitor and to actively construct the visitor's experience of travelling to the site. We now return to the three scenarios presented at the beginning of this section to support this statement.

The first scenario described a person walking down a canyon, for whatever reason, who happens upon a rock art site. Although one might expect that Archaic hunter-gatherers were knowledgeable about the land in which they lived, and were therefore familiar with the rock art sites, it must be remembered that this rock art tradition covers an area of approximately 17,000 km^2; surely no single person knew of every site. Individuals probably kept to relatively restricted areas; however, people probably travelled outside of familiar territory now and then. When they did, they could have stumbled upon unfamiliar rock art sites. Of all the sites documented, those visible from the canyon floor were the most likely to be discovered in this 'accidental' fashion. Canyons were frequented; there is no question about that. Sites easily seen from canyon bottoms were therefore most likely to have been spotted. Whether or not they were visited depended on the person. Perhaps the traveller was not interested in rock art, or not allowed to visit certain sites; this cannot be known. What is certain is that Archaic artists chose where they placed rock art, and by choosing places which were visible from the canyon bottom, made them accessible to a larger audience.

Those sites not visible from below might also have been discovered, depending on their location. If the traveller was caught in a storm, for example, and chose to take refuge in an alcove like Centipede Cave, a rock art site might have been discovered. But there are a significant number of sites which were very likely never stumbled upon. Special

knowledge or intentional searching would have been required to locate these sites. Perhaps these sites were placed in such a way that ensured they were not accidentally discovered.

The second scenario described a person who was actively searching for rock art sites. Those sites visible from the canyon bottom would have been found easily. More directed searching would have been required to find other sites. Clues, such as alcoves or large flat rock faces might have helped the person find decorated panels, as these places are well-suited for the production of rock art. More often, the person would have to simply climb around the canyon wall, examining the cliff face in an attempt to locate rock art. This is a laborious method, however, and would not often prove useful. I visited several sites which provided no clues to their whereabouts and, without special knowledge, I would have certainly passed them by. Within this scenario, the visibility of a site again plays a constraining role. So, too, does a site's location and accessibility. Those sites hidden away in high places might remain hidden from the most experienced searcher.

The final scenario described a person travelling to a specific site. In this case, the person knew how to find a site, and knew where and how to move in order to access it. Or, if someone else guided them to the site, the leader would have had such knowledge. In such a case, none of the elements above apply in a constraining fashion, but they do nonetheless affect the person's experience. The location of a site, visible or not, may be known, but the site must still be accessed, sometimes via very specific paths.

The intentions of a traveller will therefore affect the person's experience of travelling to a site. Someone moving purposefully toward a place will hold a mental image of their destination, and of the path they intend to follow to reach that destination. Such a person will notice different things along the way than an individual hunting for rock art, or someone who stumbles upon a site. But what remains constant regardless of the visitor's intentions are the requirements placed on the traveller's body by the path leading to a site. In short, *all* of the rock art sites documented for this project possess certain elements which influence every visitor travelling to the sites. These are qualitative differences

which, it will be argued later, influence not only the act of travelling to the site, but also play a role in the meaning of the rock art, and its role in Archaic society. These elements are significant facets of the rock art tradition. They cannot be deduced from maps, picked out of photographs, or otherwise arrived at *ex post facto*. They can only be discovered experientially, in the field, and can only be documented by means of description. This is one reason among many which favours the adoption of a phenomenological approach to rock art.

Archaic artists were aware of the experiential qualities of the landscape, and they used these qualities to achieve certain ends. They were able to draw upon the agentive forces inherent in the topography and incorporate them into the rock art tradition. By choosing what to paint and where to paint it, they determined how likely a site was to be found, thereby encouraging or discouraging visitation, and ensuring that some sites remain central and are reused, while others stay on the periphery, known only to a select few.

They also determined how the sites were accessed. Sometimes, natural paths lead the visitor to a site via a specific route; this path is part of the rock art site. If the artists chose a place which allows only one access route to a site, they consequently ensured that every visitor took the same path when travelling to view the art, and therefore had similar experiences. Panels high on cliff faces *require* climbing to reach. Other constraints might require the visitor to approach the panels from the right or the left of the art, or might control the order in which panels can be viewed. Rock art sites lead visitors first into the chosen canyon, then along one or more paths to the rock art itself.

Paths are, by definition, teleological. They are not random, meandering circuits, but rather guides, which lead a person from one place to another. When a rock art site is produced in a place which denies any freedom of approach, a unique path is created, which leads a person from *A*, the beginning of the path, which may often be arrived at by several means, directly to *B*, the rock art site. Of course, point *A* is very often located within a canyon, which is itself a path. Some rock art sites were located along such 'canyon paths', like the Great Gallery, and other than a short walk to the cliff and perhaps

a climb onto the ledge below the art, no strictly-defined path leads to the site. Other rock art sites, as we will see in later examples, are found at the end of one-way paths.

Finally, by being able to control *how* a site can be accessed, the artists were able to determine, to some degree, *who* accessed the site. Those sites which were the least accessible were not open to visitation by everyone; indeed, I was prevented from seeing one rock art site because I could not follow the path leading to the site; I instead had to ask someone to climb to the site for me, and draw up what he saw.

The location of a rock art site within the wider landscape cannot be taken for granted in rock art research. Every site must be travelled to and, in many cases presented in this study, the present-day researcher must follow the same path that the Archaic visitor took. It can be argued, especially in those cases where a site's location affords only one specific access route, that the experiences afforded by the land when travelling to a site are an integral part of the rock art site as a whole. These experiences – kinaesthetic, visual, auditory, and so forth – had metaphorical significances which enhanced the meaning of a site; these are explored later. But it is not only the *paths* to a site which afforded such meaningful experiences – the rock art panels exist in specially chosen *places* which also can also constrain movement and perception, and which provide the visitor with specific experiences.

Being at the Sites

The previous section led this discussion through canyons and up cliffs and talus slopes to within reach of its goal – the rock art. It might seem that the journey has ended, and the time is here to finally discuss what the art looks like. But first, just as the notion of travelling to a rock art site needed to be problematized, so too must the act of 'viewing' the rock art.

Consider an exhibition of paintings in a gallery or museum. The typical visitor goes to such a place to look at the art, and pays little attention to their surroundings. The people who set up the exhibition, however, had several choices to make. They had to decide,

among other things, where to hang the pictures, how to light them, what colour to paint the walls, and how to construct the rooms in a way that optimizes space and promotes a natural flow of visitors from one area to the next to prevent overcrowding and to encourage movement through the gallery. Museums, whether we notice or not, are designed to provide visitors with certain experiences. Most typically, these experiences are tailored to make the paintings easy to view, and to make the visitor comfortable. Rooms are well-lit and spacious, paintings are hung at eye-level on bright, flat walls, and benches are provided to let weary feet rest. In short, museums and galleries are constructed places designed to make the act of looking at art as pleasant as possible.

Now consider a rock art site. There are certainly instances in the BCS tradition of panels arranged at eye-level on vertical walls above flat, sturdy ground where 20 people could simultaneously view the images in relative comfort, but these sites are exceptions. Most sites require much more of the viewer. Images are painted high on cliffs or under low overhangs. Paintings are strewn about several rock faces within the same site, requiring the visitor to look here, then there, moving all the while. At times, this must be done while balancing very precariously on a narrow rock ledge while behind, the land falls away. Viewing rock art is rarely comfortable, and at times, it can even be dangerous.

It may seem inappropriate to compare rock art to art in a gallery because rock art was made at already existing places, whereas galleries are constructed, often built for the explicit purpose of presenting art. But the makers of rock art chose *where* to put their art, and in doing so, chose *how* the art could be seen; this is akin to the choices a gallery director is faced with. What is not appropriate in this comparison, however, is the idea of merely 'viewing' art. Looking at paintings in a gallery is a rather passive act, but even that requires something of the visitor – walking, moving, making choices. The same is true of rock art sites, but it is considerably amplified. Rock art is not just looked at, it is experienced which one's entire body. Many sites also incorporate other sensoria, such as sound and touch. Being at a rock art site is an active, synaesthetic and kinaesthetic endeavour. It is not just about looking; it is about being-in-the-world at a rock art site. This section will explore space, colour, shape, size, sound, texture, and light. All of these

elements figure in to why Archaic artists made rock art where the did, how their choices affect visitors' experiences, and how such experiences are incorporated into the meaning of the rock art.

Places

When reading an article or book about rock art, indicators of place are rare. Descriptions are often too brief, and schematized 'site maps' only provide an abstract, disembodied understanding of spatial relationships. Photographs are typically of the close-up variety: squared around the images on the rock, nicely framed against plain white paper, bound and ready for consumption. This is reminiscent of framed paintings hanging in an art gallery. But in the field, in the presence of the real thing, place is paramount. Just as the experiences of travelling to a site cannot be deduced from maps, the visceral qualities of a place are absent from site maps and especially from photographs, even when the pictures afford an overall view of the site. Once again, thick description is required.

It has been established that BCS rock art is found in a wide variety of places. For the most part, the kind of place where a panel was painted is unique to the site, despite some overall trends found across the style. One type of site, however, stands out as a clear and distinct category. They are here called 'gallery sites'. The remaining sites must be dealt with individually.

Twelve gallery sites were documented in this study. Gallery sites are, as their name implies, in some ways akin to art galleries. They offer relatively easy, comfortable viewing of rock art. These sites are open and loosely-defined places, where many people can gather at once. Gallery sites consist of one large, main panel containing several dozen images, painted or pecked onto flat, uniform rock faces. Images are placed at or just above eye-level, and are usually arranged across the rock face in a more or less linear fashion. The ground below the art is flat, solid and uniform. To view the images at gallery sites, the visitor starts at either end, and moves along the cliff face, taking in each image in turn. Alternatively, all gallery sites allow the observer to step back and take in

the panel as a whole. They all show several distinct painting episodes, suggesting the sites were visited frequently and added to over time.

All gallery sites are found in canyons. Most of the gallery sites are located at or just above the canyon floor, and are therefore quite accessible. Two require a climb to reach, but the climb involved is not substantial. These factors offer free access to the sites, allowing most individuals to visit them.

Gallery sites are public sites. They are highly visible, easily accessed, and capable of supporting numerous visitors. The three largest gallery sites – the Great Gallery in Horseshoe Canyon (site 617-1), the site in Buckhorn Wash (site 413-2) and the Harvest Panel in the Maze District (site 614-2) – might even have been places of seasonal aggregation. Each is found within a major canyon which was a significant and well-travelled path. These canyons offered straightforward travel through the land, and connected major resource areas. Gallery sites are the most easily viewed sites in the tradition.

To explore the remaining sites, let us take each of the elements characteristic of gallery sites in turn. First, gallery sites lack a clear sense of place. There are no boundaries present, apart from the canyon wall opposite the panel. They are defined primarily by the perceptual horizon of the visitor. Other sites, however, are clearly delimited. Rock art sites in caves and alcoves, for example, maintain a very distinct sense of place. Such sites are limited to the confines of the recess. There is an entrance, a threshold marking the place off from the outside; the other boundaries are defined by the walls around the observer.

At other sites, the place may be defined by a ledge or shelf below the art. At such places, it makes no difference how high above the canyon floor the ledge sits – all the observer's movements at the site are confined to the ledge. It creates a field of possible movement beneath the art, which cannot be overcome. In many cases these panels are viewable from below, while not standing on the ledge, but when this is done, the sense of place is lost.

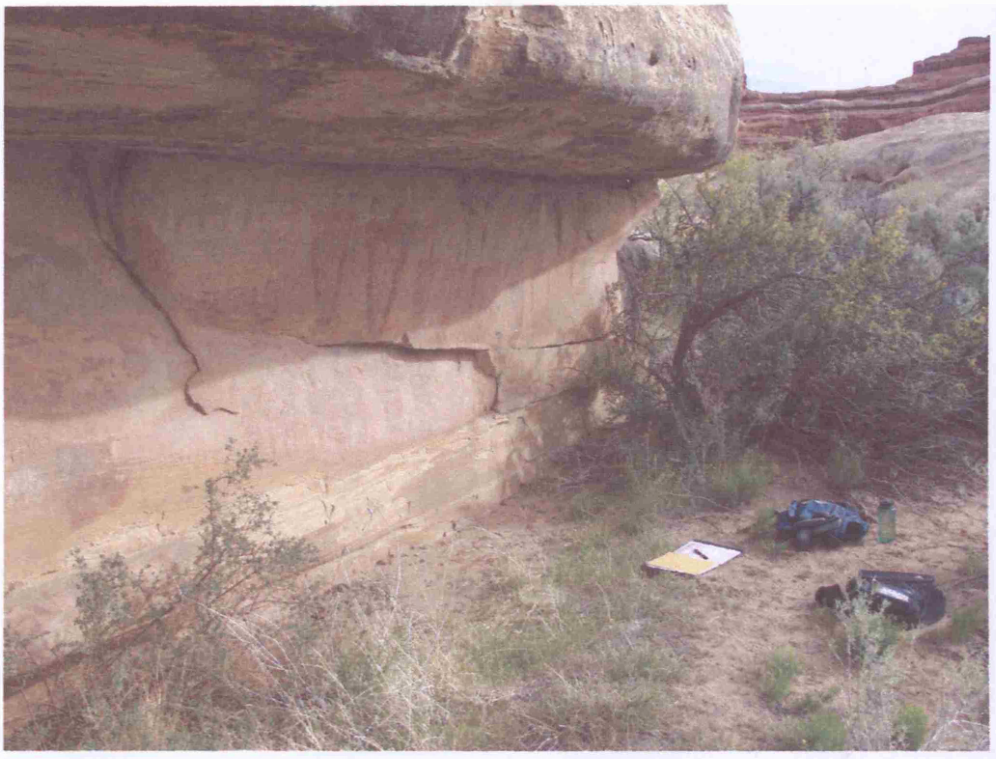

Figure 3.14 - The overhang above this panel of figures creates a confined sense of place (site 428-1).

Still other sites are at places defined by the contours of the rock. Panels located beneath overhangs, like the one in *Figure 3.14*, are in places defined by the space between the ground and the bottom of the overhang. Even though this panel is in an open area, the place seems confined because of the shape of the stone.

On a larger scale, consider the site shown in *Figure 3.15*. There are a few small figures in the centre of the arc-shaped shaded area near the black truck. This shallow alcove frames the figures in the cliff, and delimits them spatially. Furthermore, the alcove is centred in a large curved area defined by the cliff, as can be seen on the topographic map in *Figure 3.16*. The red X shows the location of the panel. The black oval drawn on the map (which is about 400 metres wide) approximates an imaginary extension of the cliff's curvature, and shows the perceived 'place' created by the shape rocks. This was not possible to capture photographically, but when at the site, this imagined boundary is quite noticeable.

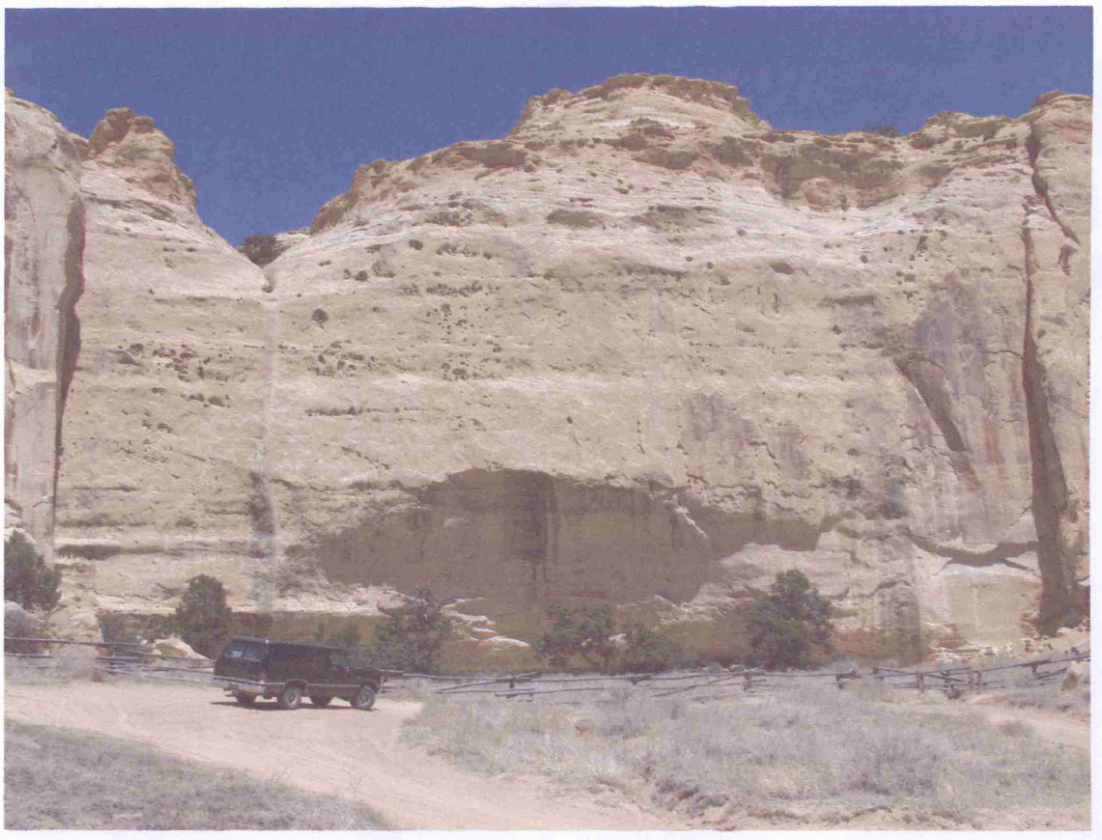

Figure 3.15 - Rock art is found in the centre of the large arc-shaped shaded area near the black truck (site 414-1).

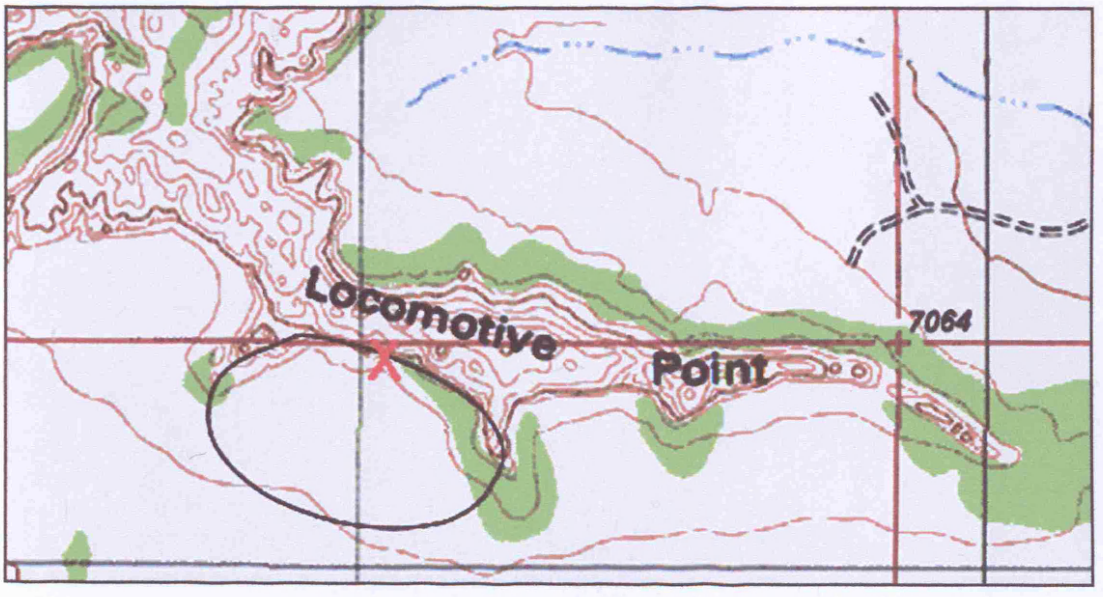

Figure 3.16 - The black oval represents an approximation of the perceived place created by the contour of the cliff face; the red X marks the location of the rock art.

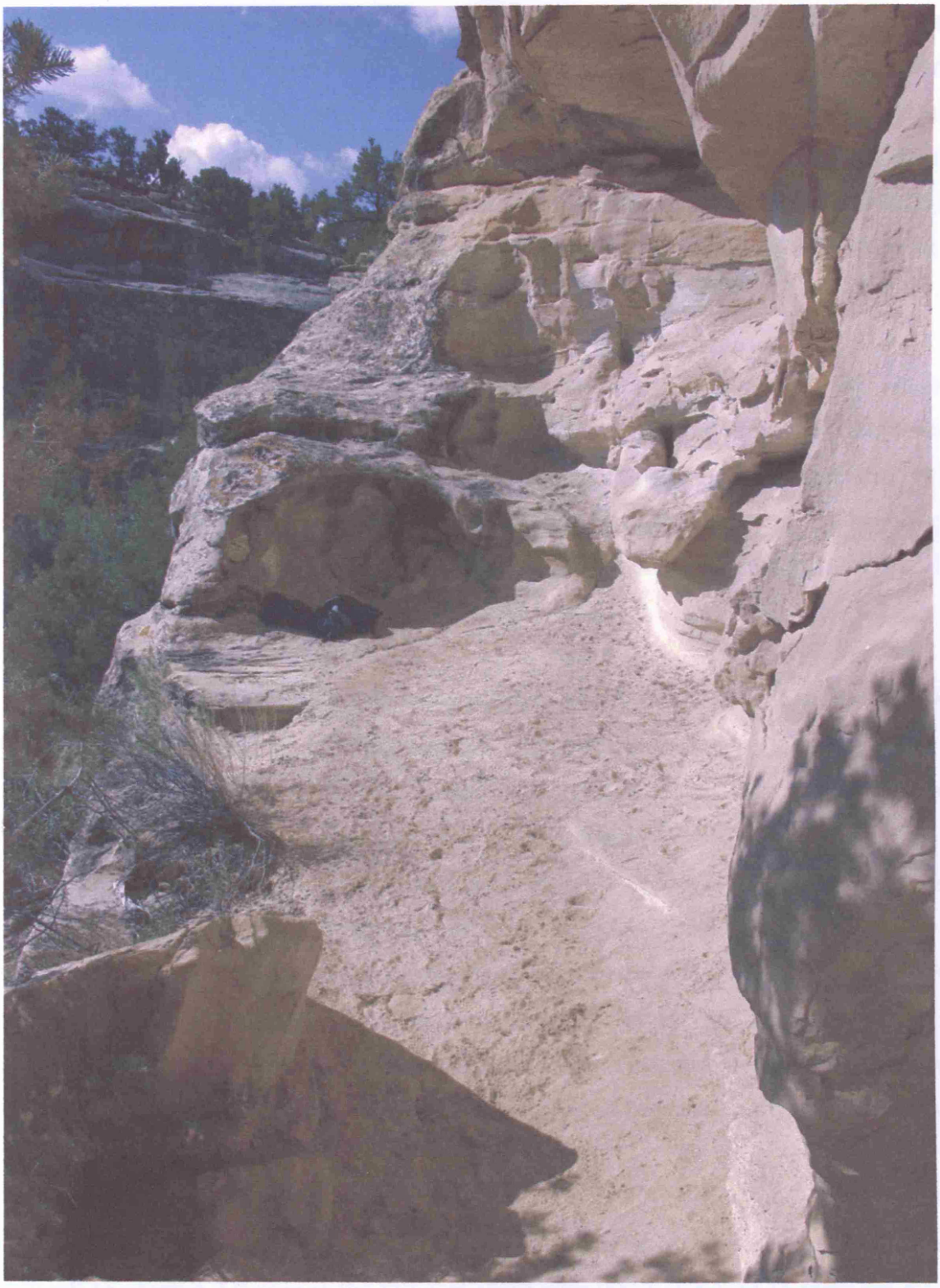

Figure 3.17 - This sandy area is below a rock art panel, and is situated high above the canyon floor (site 606-1).

A final example is shown in *Figure 3.17*. Beneath the panel, which is on the rock face to the left and is not visible in this photo, is a flat sandy spot, about four by eight metres in size. This platform is at the end of a long bench situated about a third of the way up the canyon wall. This flat sandy platform is matched above by an overhang of about the size. This combination creates a well-bounded place, almost like a small room sitting high above the canyon floor, with a natural path (the bench) leading directly to it. It is a unique place in and of itself, and although the rock surface here is soft and not great for supporting rock art, images were placed here anyway.

Archaic artists often chose naturally bounded places for the production of rock art. These places were picked out as appropriate for housing rock art. They are like containers into which rock art was placed, and into which a person can enter in order to experience the rock art. They were chosen for their physicality – the fact that they are bound and can 'hold' observers, perhaps separating them off from the outside world for the duration of their visit.

Another characteristic of gallery sites is the presence of a flat floor beneath the art, where one can stand comfortably to view the images. All of the examples just discussed share this trait; however, many BCS sites do not. Some panels are painted above piles of furniture-sized rocks, so one must hop from one to the next to view the images. Often, these rocks lack flat tops, so standing on them is difficult. Still other panels have almost no floor beneath them at all – the ground just slopes away into the canyon below, sometimes quite steeply. In such cases, the observer is forced to pay as much attention to where they put their feet as to the art they came to experience. Finally, there are some sites where one cannot stand at all – the observer must crouch and look up at images on the ceiling of an alcove, or sit on a flat rock to view the art because the overhang above is too low to offer enough space to stand.

While many sites in this tradition can be viewed comfortably, others are quite simply difficult to observe. Of note is the fact that those sites which are hard to view are also usually hard to access. This imposes constraints on who may visit the sites. Furthermore,

this also causes the visitor to be more keenly aware of their surroundings, by forcing them to pay attention to the relationship between their body and the physicality of the place in order to maintain a firm footing and proper balance. The visitor is reminded that the only reason they are perched on a ledge high up a towering cliff is to be able to relate in an intimate and personal way with the rock art. The efficacy of the art is thereby increased. Images in these kinds of sites are most definitely not just viewed – they are experienced with one's entire body.

This sharp kinaesthetic awareness is not provided to visitors at gallery sites. This is not to say that gallery sites are less significant – they are just different. At gallery sites, which are viewed 'easily', importance is placed on the art, and the possibility that many can view the art simultaneously. Sites that are difficult or dangerous to view tend to offer a more intimate experience.

A final quality that is used to define gallery sites is their capability of supporting many observers at once. This lead to their assignment as 'public' sites. The ability of gallery sites to support multiple observers is based on their size and physicality – the panels are large and easily seen, and the area in front of the images is big and flat. Clearly, some of the sites presented here do not fit those criteria. Gallery sites are also somewhat anonymous – the relationship between the visitor's body and the physicality of the place is not brought to the visitor's attention, so experiencing these sites is a relatively passive activity. Small, clearly bounded places which can only hold one or a few observers, and sites which are difficult or dangerous to experience, create such a keenly intimate relationship with the decorated rock face that they seem appropriate only for a single visitor. On this end of the spectrum, opposite gallery sites, rock art was made to be 'private'.

The physicality of the places where rock art sites are found creates boundaries, thresholds and possibilities. These and other qualities generate an experiential ground against which the art is experienced. In many cases, Archaic artists chose specific places for the production of rock art because of their physicality. The expansive panels found at gallery

sites, for example, can only be made at places with very specific qualities. Sites with clear boundaries create a distinct sense of place, and act as 'houses' for rock art. Perhaps these bound places were sacred places, set aside from the rest of the landscape. Even those places which are not clearly bounded influence the act of being-in-place. In the case studies in Part V, some of these qualities are further explored.

Views

The physicality of a place also influences how the rock art may be viewed. Gallery sites are viewed by walking along the base of the cliff, looking across or sometimes slightly up at the images. The motifs are seen sequentially, one at a time; or, for an overall view, the visitor can move back away from the cliff and look at the panel as a whole. Other sites in this tradition do not allow so much freedom. In the previous section, a site was introduced which is located 40 metres up a sheer cliff. While it can be seen from the canyon below, considerable climbing is required to view the images up close. This is one of those sites which is difficult to experience at close range – the ledge below the art is small and precarious, and those brave enough to climb to it have a hard time viewing the art because they are standing with their body flat against the cliff, so small is the ledge, while the two-metre tall anthropomorphs hover overhead and can not be easily seen. But it was noted that there are details present in the paintings which can *only* be discerned from this vantage point. While it is easier (and safer) to view the panel from below, only the general form of the figures can be seen, and all the detail is invisible.

This dichotomy is present in many sites. The visitor may chose to view the panel from a distance, thereby sacrificing a view of the details present in the paintings, or they may move up close and see the detail, but at the same time they lose not only an overall view of the panel's composition, but often a comprehensive view of the individual figures which contain the details. This brings up the question of which was the 'correct' vantage point from which to view the rock art.

The answers explored here work on the assumption that this rock art was meant to be seen; that is, after the images were painted on the rock, the sites were subsequently

visited for the purpose of looking at and otherwise experiencing the rock art. It is possible that the act of painting the figures was more important than viewing them, and therefore the sites were not re-visited, but in light of what has been said already this does not seem probable.

One possibility is that while the rock art images were intended to be viewed, the details present in many of the figures did not necessarily need to be seen. In this case, the mere fact that the details existed was sufficient for the rock art to serve its purpose, even if those details were not seen by human eyes. But this argument is similar to the idea that just making the rock art fulfilled a task. An immense amount of work went into painting fine details at many sites. These sites are often in bound places, chosen out of many possible sites for their physical qualities. Again, the evidence explored to this point suggests these rock art sites were visited *up close*.

One answer best explains this problem of detail. It exists first because it is important to the function of the imagery, but is also there *to encourage intimacy with the rock art.* If figures at high and inaccessible panels were bold and simple, there would be no reason for the visitor to risk life and limb to climb up to them. But if the images are somehow unclear, or if it can be determined that there is more than first meets the eye, then the visitor is encouraged to move in for a closer look. The anthropomorphic forms of this rock art tradition possess a very potent agency, and it will be argued shortly that the personhood of these forms played a very significant role. Details present in many panels draw the visitor right up to the rock face, so that they must confront these ghostly forms directly, and contend with their efficacy on a very immediate level.

This solution to the problem of detail works for most sites, but the situation is confounded by one particular panel. *Figure 3.18* shows a site in Horseshoe Canyon, not far from the Great Gallery. The figures are about 35 metres above the canyon floor. The largest figures are a metre tall, and the images are quite detailed, but there is no way to view them closely. The white horizontal line in the photograph shows the highest possible point to which a person can climb; from here, the images are still a full five

metres overhead. There is no sign of a broken ledge below the panel to suggest the place was once different; it is speculated that ladders or scaffolding were used to paint the figures.

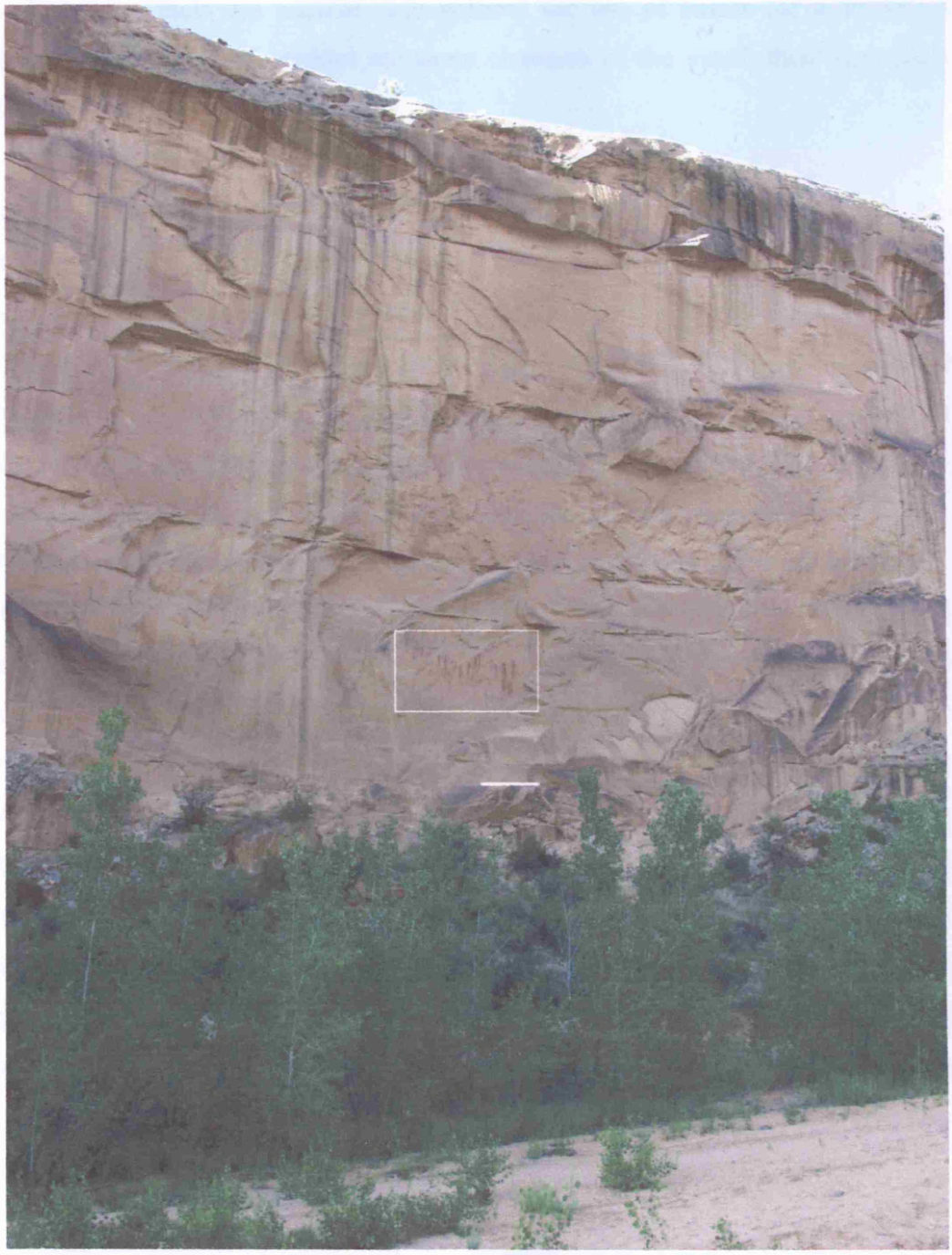

Figure 3.18 - The High Gallery in Horseshoe Canyon (site 616-1). The panel is outlined with a white rectangle. The line below shows the highest point a person can climb; this point is still five metres below the art.

While at this site I had the advantage of being able to use binoculars to view the panel. This modern technology allows me to know that the panel in *Figure 3.18* was produced during at least two distinct painting episodes, that some motif superimposition is present (which is rare in this tradition), and that one painted figure was augmented with incised lines. But these facts are unobtainable without the use of lenses (or a ladder). If an Archaic visitor to this site cannot see these elements of the panel, their significance is unclear.

This anomalous site adds credence to the possibility that this rock art did not need to be seen in detail in order to perform its function. The images today hover high above the tree tops in this canyon, ever staring down over the hordes of visitors who pass by on their way to the Great Gallery. This panel, however, is one site out of many and remains alone in this respect. I would like to imagine the rock surface *did* in fact change over time, but if this is not the case, I admit to being unsure of what to make of this site.

In the end, most sites in the BCS tradition require the viewer to examine the art from multiple points of view. Even the Great Gallery, a large and easy to view public site, boasts details which cannot be seen from a distance, thereby encouraging visitors to climb up onto the ledge below the panel to have a closer look (much to the dismay of the National Park Service). The rock art was therefore produced in a way that encourages movement. In my experience, I always got as close as I could to each new rock art site I visited. Often, the climb to the panel took my breath away and I would have to sit for a moment and wait for it to return; but I would soon stand up and begin to move around, exploring the art from different angles, searching for a good perspective. I cannot imagine I was alone in doing this; I was likely following the steps of Archaic visitors to these sites. There is not, therefore, a single vantage point from which a given panel ought to be viewed. The makers of these images chose what and where to paint in a way that encourages – even requires – active viewing.

Surfaces

The discussion now turns once again to the topic of rocks; specifically, to the stone surfaces upon which the rock art is made. Too often, the 'rock' part of 'rock art' is overlooked as a mere modifier, an adjective describing the kind of art being alluded to. The physical shape of the rock, as well as other attributes such as its colour and texture, are a source of further sensory experiences which provide yet another layer of meaning to the rock art.

Archaic artists did not always choose plain, flat walls for the production of rock art. Most often, images were placed within an area of the cliff where, in the 'recent' geologic past, some part of the rock face has fallen away, leaving the 'fresh' interior of the cliff exposed. This area is usually rectangular, because of the way sandstone tends to fracture, but is sometimes arc-shaped (Figure 3.19).

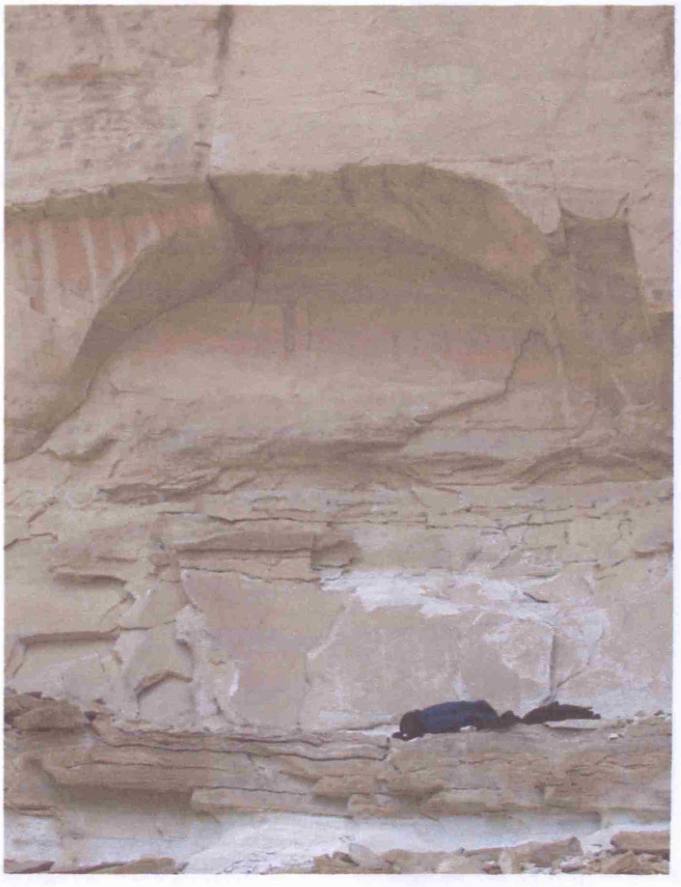

Figure 3.19 – A few figures painted beneath an arc-shaped depression in the cliff (site 420-2)

Similarly, several sites are found in caves and alcoves, ranging in depth from a few metres to as many as a hundred metres deep. A full 80% of the canyon sites are in alcoves or spalled areas, as are most of the upland sites. This theme is paralleled by the fact that most of the rock art sites in this tradition are found in canyons, which are essentially great holes in the ground. The rock art was therefore most often placed on rock faces that are not only beneath the surface of the earth, but *within* the rock as well. This recurring theme is quite significant. If Archaic peoples conceived of a tripartite cosmos, placing rock art in these 'interior' surfaces insured that the images rest as close as possible to the lower world. This makes rock art sites places of significant supernatural power, a topic that will be discussed in detail later.

In addition to being within these 'holes' in the rock, images sometimes correspond with features of the rock surface in other ways. While the rock's topography is not often incorporated graphically into the motifs, features of the rock's surface certainly suggested to Archaic artists where to place figures. *Figure 3.20*, for example, shows a few figures that were painted in a small recess on the ceiling of an alcove, framing them within its confines. *Figure 3.21* shows part of a gallery site; the figures here were placed above an inverted arc-shaped ledge on the cliff face. In both of these instances, the shape of the rock influenced the artist's decision concerning where to place the images.

Figure 3.20 - These figures were painted in a small boss on the ceiling of an alcove (site 403-3).

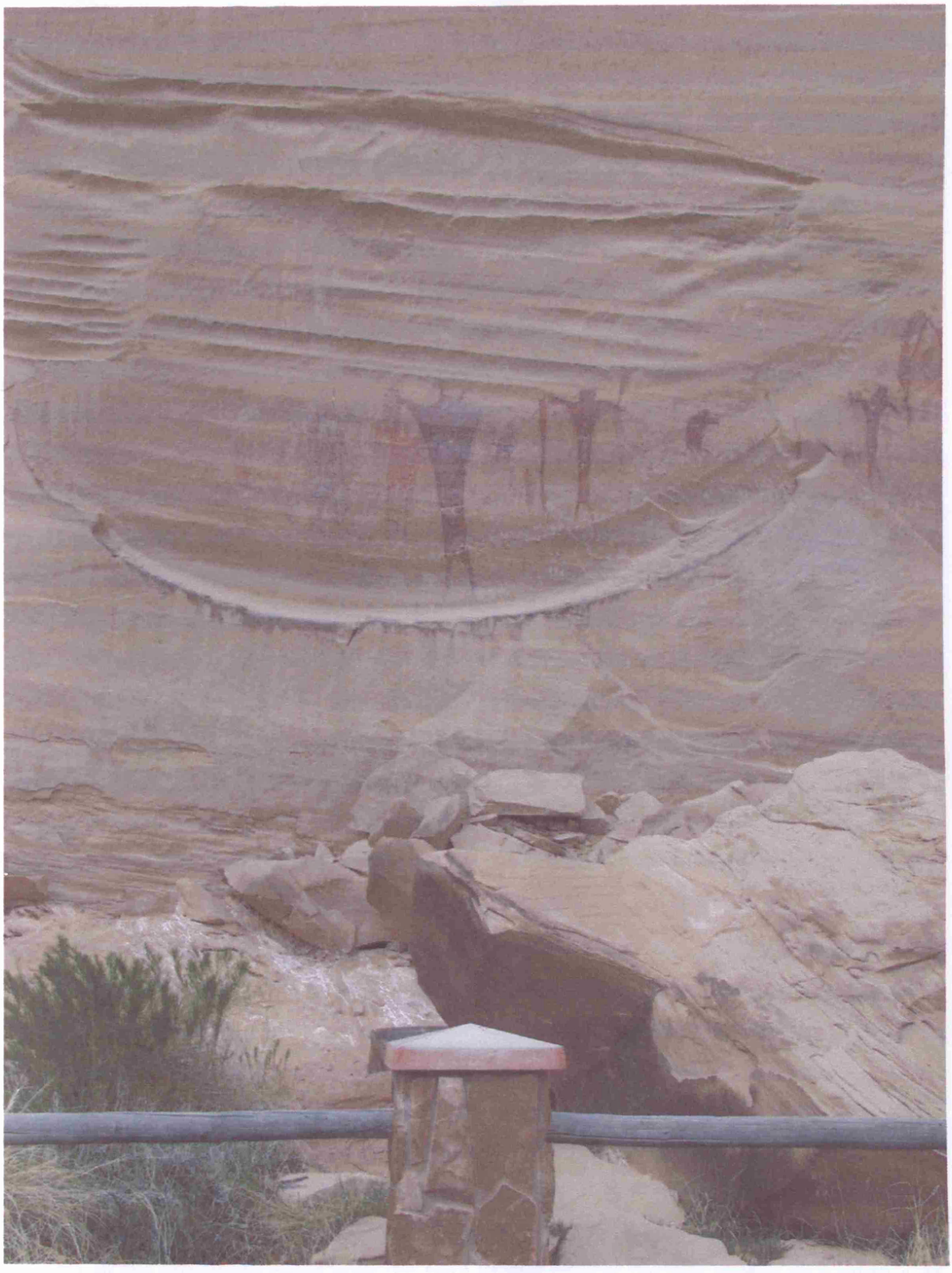

Figure 3.21 - These figures were placed in accordance with the shape of the rock surface (site 413-2).

The colour of the rock also played a role at some sites, influencing the artists' decision about where images would be placed. The panel in *Figure 3.22*, for example, contains several motifs painted in thick, mud-like 'paint' applied to the back wall of a shallow alcove. Almost all of the figures were placed neatly within a horizontal band of light-coloured sandstone, even though the surface above this band is perfectly suitable.

Figure 3.22 - These motifs were placed within the confines of a horizontal band of lighter coloured sandstone (site 616-2).

Each of these panels demonstrates a decision on the part of the artist to use the shape or colour of the rock face in order to impose a boundary upon the painted images. These areas, differentiated by shape or colour, represent areas 'set aside' from the rest of the cliff face. They represent areas of qualitatively different rock, and were picked out as appropriate surfaces on which to paint.

In other instances, the rock surface becomes part of the panel in a more graphical way. Ripples in the sandstone cross over the face of this cliff at the site shown in *Figure 3.23*. The high surfaces of the ripples have eroded, and appear white against the darker rock face. The inclusion of this natural feature gives the panel a wonderful illusion – it appears that rays of sunlight are streaming across the rock face toward the painted figures.

Figure 3.23 - Ripples in the rock face create an interesting visual effect in this panel. The painted figures have been unfortunately outlined in chalk (site 410-2).

Figure 3.24 shows another, much more subtle example. The three anthropomorphic figures at the bottom appear to almost stand on a transition in the rock face from smooth to rough. Above, the vertical painted lines were placed on a part of the rock face which extends out further than the surface below. This incorporation of the rock's contour into the panel gives the images a kind of depth, and grounds them to the cliff face.

All of these sites merge natural features of the rock with the painted images in different ways. The rock surfaces contain certain qualities which the artists picked out as significant; they then incorporated those qualities into their rock art. The rock and the art are inseparable. Most often, however, rock art was placed within spalled areas on flat, buff-coloured stone. Surfaces like this were ideal – the colour ensured strong contrast between the images and the underlying rock, the flat surface provided a uniform canvas, and the minimal texture reduced visual noise and held pigments well.

Figure 3.24 - Several surfaces were incorporated into this panel is a very graphical way.

In a few rare instances, less often even than the inclusion of features into the imagery, very different colour and texture combinations were chosen. These stand out because the surfaces seem rather inappropriate for the production of rock art. One such site has already been discussed in the previous section – the Alcove Site, situated high above the canyon floor and accessed via a slot canyon. Very little rock art is placed on the underside of horizontal surfaces within the BCS tradition, as the images are at this site. The rock art at the Alcove Site is on the ceiling because the back walls of the alcove

would in no way support rock art. But even the ceiling on which the rock art was painted is not well-suited for holding pigment. It is quite soft and crumbly, has a rough texture, and its colour is variegated. As was suggested earlier, this rock art was probably produced here because the *place* had certain desirable qualities. The poor quality of the surface was therefore overlooked.

Figure 3.25 shows part of the main panel at another such site. Today, much of the painted surface has broken off of the cliff. What is left is quite impressive – the amount of fine detail present in this panel, which is hardly visible in this small photograph, is unsurpassed by any other site documented for this study. It was clearly a major site in the past. But like the Alcove Site, the rock surface here is not well suited for holding onto rock art. The stone is quite soft and crumbly, and high in texture. The place is again an important feature at this site, but the surface, although soft and rough, is also noteworthy.

Figure 3.25 - The rock art at this site has largely peeled away. This surface is not well suited for the production of rock art (site 607-1).

Figure 3.26 shows an overall view of the site. This large shallow alcove is found in a cliff face of horizontally-laid sediment. But within the alcove, the rock layers are situated diagonally. The inside of the cliff, exposed by the alcove, is quite different from the outside. It seems that this place was seen as significant, and even though the surface was not well-suited for making rock art, the alcove was nonetheless embellished with images.

Figure 3.26 - This is an overall view of the same site. There is rock art throughout the shallow alcove. The place seems more important here than the surface.

This site adds credence to the possibility that interior surfaces were highlighted and picked out by Archaic artists because they are *inside* the cliffs. This site also works against another possible explanation for the frequent occurrence of rock art on these sheltered, interior surfaces. Places such as alcoves and spalled areas give shelter to the painted images because they have overhangs above which divert water running down the cliff face, and some might argue that this practical reason drove people to choose such places for making rock art. But at this site, although the images are within a sheltered alcove, the back wall is not suited for making rock art; in fact, the poor quality of the stone and the deteriorated paintings are quite probably the result of water running down the rock face, which suggests the rock face is in fact not well protected. The best explanation for the presence of rock art here is that the place and the unique rock face were, in this instance, more important than the quality of the surface.

Both of these sites help to demonstrate the power of place in this rock art tradition. The artists were willing to put images on poor quality surfaces because the places were so significant. These were spots that *had* to be embellished with images. There are other sites like these, where the physicality of the place met certain criteria, and although the surfaces were not ideal, rock art was produced there nonetheless. Such sites help us to understand what those criteria were, and how places were chosen for making rock art. This idea is picked up again later; for now, more must be said about being at rock art sites.

Ambiance

The discussion thus far has focussed on the kinaesthetic and visual properties of places and surfaces, and how these qualities create experiences which enhance the meaning of rock art sites. Being in the world, however, is a synaesthetic endeavour, and there are more elements to consider. These other phenomena, such as sound, smell, and experiences of light and temperature, are more difficult to pinpoint but are nonetheless significant.

The role of sound in this rock art tradition has been systematically explored to a small degree. Waller (2000) measured sound reflection at four rock art sites in the Horseshoe Canyon district of Canyonlands National Park in an attempt to establish a link between rock art and echoes. He began by noting that in his experience, it seemed the decorated panels reflected sounds more distinctly than undecorated faces within the canyon. Waller then measured sound reflection at the four rock art sites and compared his results with dozens of measurements from different undecorated spots along the canyon. His results demonstrate a strong statistical correspondence between rock art and echoes. In fact, as good scientific theories ought to, his results proved predictive. One seemingly plain rock face produced an echo pattern reminiscent of the known rock art sites in the canyon. After inquiring about the place, he learned from a National Park Ranger that there is indeed a small and very faint anthropomorph painted at that very spot.

Waller concludes his paper very loosely, suggesting that perhaps strong echoes were one criterion influencing Archaic peoples' choices when deciding where to place rock art. He also makes an interesting comment that the echoes of sounds produced in the vicinity of these rock art sites seem to emanate from the rock itself. Indeed, I was told by a Park employee that if a person hiding around the corner from the Great Gallery speaks, their voice is reflected in such a way that someone standing at the panel hears the voice coming from the painted panel (Gary Cox, pers. comm., 2005). Waller's results are interesting, but his study was limited to a small section of one canyon. For his findings to be conclusive, sound reflection should be strong at a majority of BCS rock art sites, but this is not the case. There are a handful of sites with obvious sound reflection qualities, but these are exceptions. Three of these are discussed briefly here.

The first site, discussed previously and shown in *Figure 3.15*, is located in a large bound place defined by the curvature of cliff, and reflects sounds quite well. There is a large interstate highway about a kilometre from the site, running parallel with the rock face. The three times I visited the site I noticed that the sounds coming from the highway are reflected in such a way that they seem to emanate out from the decorated rock. Of course, Archaic peoples would not have heard the rock art making sounds like 16 wheel freight trucks as I did, but drumming or chanting taking place some distance from the cliff would have been reflected similarly.

Another site with notable acoustics is shown in *Figure 3.27*. The decorated panel is situated above a pile of rock that acts as a fine viewing platform. The small map in the inset shows the location of this place. A black dot marks the point of rock where the panel is, and the contour of the canyon wall opposite the panel is outlined in black. During one visit to this site, I was standing on the platform below the panel while my father was at the other side of the canyon, about 150 metres away. Speaking in my normal voice, I could be heard clearly by him, and he by me. The contour of the canyon wall opposite the site reflects sounds quite well. At this site, sounds do not appear to come from the rock face; rather, sounds made at the rock face are heard quite distinctly, even 150 metres away.

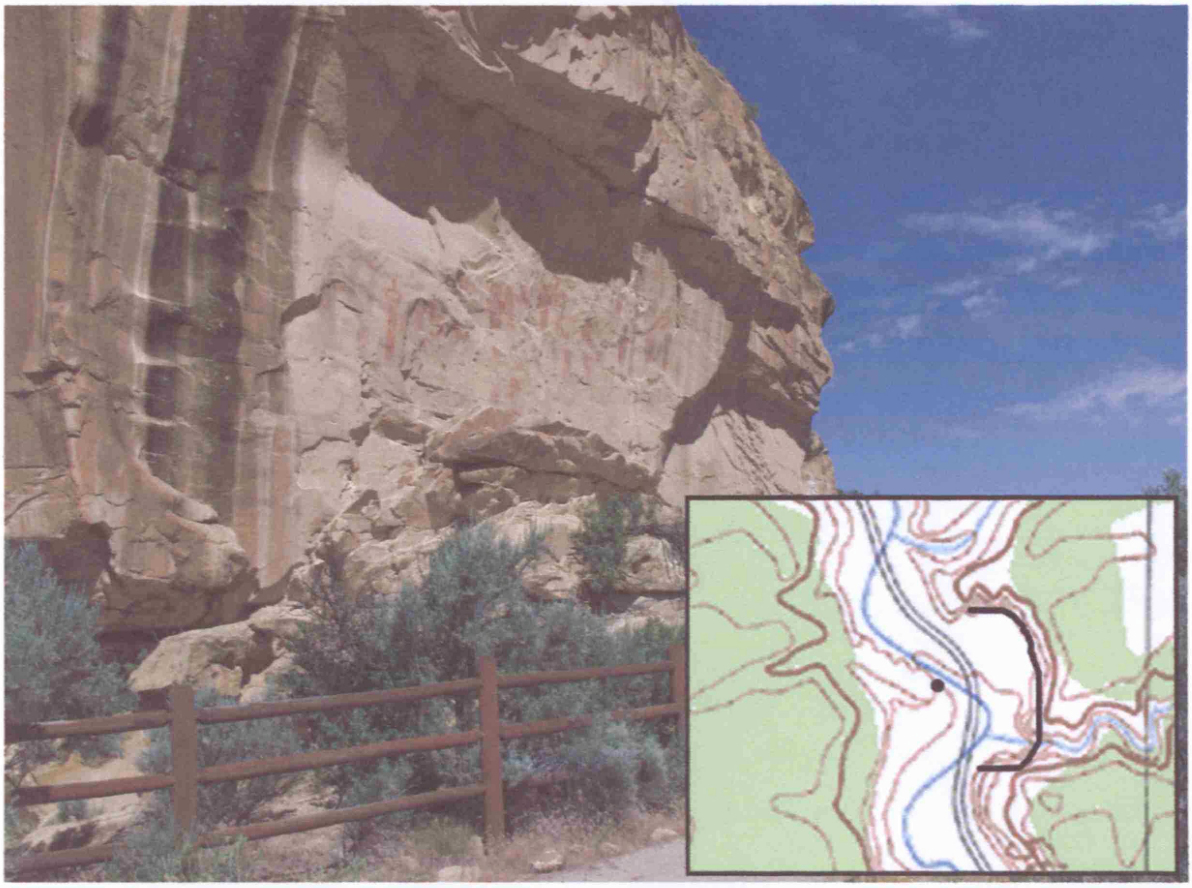

Figure 3.27 - This site has interesting acoustic properties – a speaker at the panel can be heard far away (site 605-1).

The physicality of this place is notable. First there is a large, light-coloured rock face, not very smooth, but solid and able to support rock art. Below the face is a flat and sturdy platform. The area in front of the panel, extending for 150 metres to the opposite side of the canyon, is quite flat and capable of supporting a large audience. A person standing on the platform below the panel would be heard by anyone in the area. This place would have been an ideal setting for ritual. One or a few individuals standing in front of the decorated face could be seen *and heard* by a hundred or more people. It is certain that the acoustic properties of this site played a significant role in the meaning and function of the rock art here.

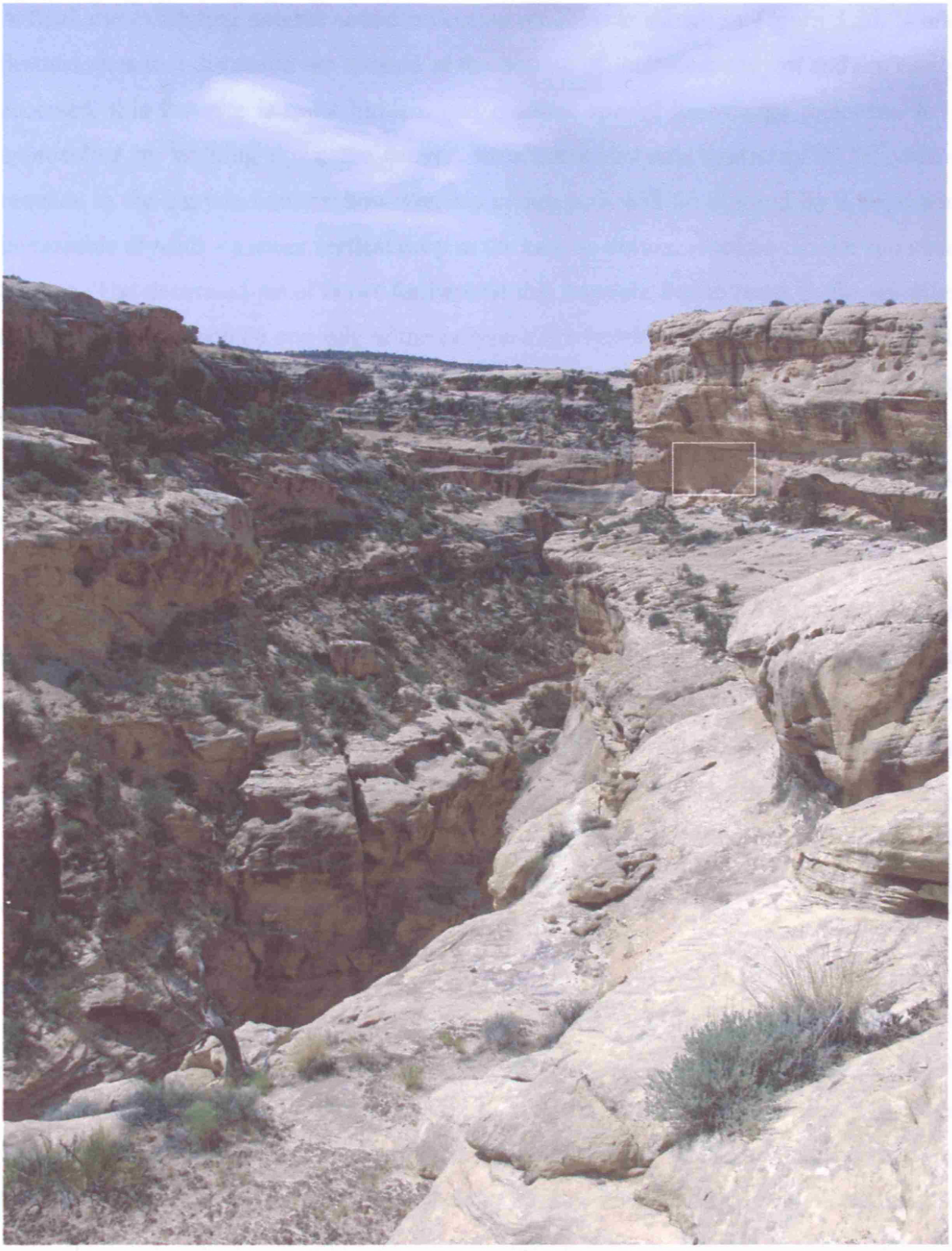

Figure 3.28 - A view from a distance of a site with notable acoustic properties. The panel is outlined in white. The site can only be accessed along the bench from which the photo was taken. To the left, the ground drops away several hundred metres to the canyon floor (site 621-1).

A final site exhibiting notable sound reflection qualities is shown in *Figure 3.28*. While the two sites just discussed are located at the bottom of their host canyon and are easily accessed, this last site is quite hidden, and requires special knowledge to locate. It is approached by walking down the canyon from some distance upstream. If the visitor remains in the canyon bottom, however, his or her path will be blocked by a large and impassable dry-fall – a sheer vertical drop in the canyon bottom – before the site can even be seen. The decorated panel is not far beyond this impasse, but to reach it, the traveller must climb to a bench on one side of the canyon a few hundred metres before the dry-fall, and follow the bench past the drop-off until it dead-ends. The panel faces the approaching viewer, and can be seen from a distance. After visiting this panel, the only way out is to retrace one's steps; from here, one cannot continue downstream, nor is it possible to climb out of the canyon or down into its depths.

The acoustic properties of this site are incredible, and are only present when the visitor is within a few metres of the decorated panel. From there, even the faintest sound, such as a loud whisper, is echoed distinctly by the cliffs on the other side of the canyon. Louder sounds, like a hand clap, produce two very clear and successive echoes, separated by a short delay. I found myself mesmerized by this phenomenon for the best part of an hour, experimenting with different sounds. Rhythmic drumming on my empty canteen created a reverberation unlike anything I have ever heard. I can only imagine what an actual drum or other instrument would sound like here.

This site is powerful. In addition to its impressive acoustic properties, the location is very unique. Only one path leads to the site. Though rather easy to reach, it is very much hidden, and is perched on the edge of a hole so deep the bottom cannot be seen. The place is very wide and open, but at the same time the physicality of the site allows for very limited movement around the place. It feels more like an upland site than a canyon site, with more sky visible than rock and sand. Yet it is in a canyon, and can only be approached from the canyon. Finally, like so many sites, the panel is found on a 'fresh' area of the cliff, where the rock face has spalled away. This site incorporates all of the

themes so far discussed, and each adds another facet to the significance of the place and its rock art.

Sound can play other roles at rock art sites – it does not need to be reflected to be significant. Background noises present at rock art sites might have also been meaningful. While canyon country is for the most part extremely quiet, wet canyons provide a stark contrast to the norm. Being at a rock art site in a wet canyon is accompanied by a cacophony of sounds. Running water is the most prominent – even the smallest trickle is heard. A slight breeze, which in dry canyons just brushes against rocks, in wet canyons rustles limbs and leaves. Then there are animals – the whistles of birds are frequently heard, and rustles in the brush allude to snakes, rabbits, or other small creatures taking advantage of the water and shade offered by wet canyons.

Wet canyons also offer smells absent from most rock art sites. The dry canyons smell mostly of dust, sage, and juniper. But in the presence of constant running water, where the dust subsides and the air blows a bit cooler, other smells rush in. Even water has a smell, something I did not realize until after I spent some time in the desert. The plants in wet canyons, with their moist leaves, offer an astonishing array of scents. These soundscapes and smellscapes are available only at a few select rock art sites, and radically change the perceptual ground against which the art is experienced.

The kind and quality of light in wet canyons does not differ significantly from dry canyons; this perceptual element is most dependent on the time of day and part of the year a rock art site is visited. The play of light across rock art was touched upon earlier in this chapter; it was said that direct sunlight makes rock art very difficult to see, and that most panels are best viewed in the shade. Some rock art, however, is always in the shade.

Consider the motifs in *Figure 3.29* – these three figures are part of a large gallery site. The rock surface is south-facing, and receives direct sunlight much of the day. These figures, though, are beneath an overhang which provides a constant shadow. The bottom edge of the shadow shifts through the day, and varies the amount of sunlight which falls

on the bottom of the figures. This has faded the bottom of the three figures while the tops, always in shade, remain dark. On a cloudy day, the shadow is not present, but when the sun is out, the shadow creates a boundary around the images, framing them inside its confines. This effect is therefore dependent on the kind of light present at the time the panel is visited.

Figure 3.29 - These figures were placed beneath an overhang and are always partially shaded (site 411-4).

Figure 3.30 shows another element of the same site, located ten or so metres to the left of figures in the first photograph. Here, several white fingerprints were placed in the shadow of a small ledge. This shadow is an essential part of the paint dots, whatever they might mean; it frames them quite distinctly. Again, when the sun is not shining directly on this rock face, the effect disappears.

Figure 3.30 - Several white fingerprints were placed in the shadow of this shallow ledge (site 411-4).

Direct sunlight therefore changes the way images are perceived at some sites. It can obscure images completely, or frame them within the confines of cast shadows. Direct sunlight also changes the temperature of a place; obviously, the air is much hotter in the sun than in the shade. Sites beneath large overhangs, and those found in caves and alcoves, are always in the shade. At these sites, the air is always much cooler than nearby areas in direct sunlight. The presence of shade and shadows is another experiential layer which determines how a rock art site is experienced.

Apart from sound reflection, all of these other perceptual qualities – ambient sounds, light, and temperature – are mutable. They are different in the summer than in the winter, when snow covers the land. At different times of the day, different experiences are available to the viewer. During a rainstorm, the air cools, the sky changes from blue to grey, the colour of the ambient light shifts from red to blue, and the water coating all exposed surfaces darkens colours and increases contrast. When I found a site that was always exposed to direct sunlight, I would try to visit it while it was raining, because only then could the faded figures be clearly discerned.

These rock art sites therefore gain a temporal dimension. Some of the experiences which contribute to the meaning of a site depend on the time of day and part of the year a site is visited. Some knowledgeable of this rock art have spoken casually of 'summer sites' and 'winter sites', depending on when the rock art is best viewed. I do not wish to divide sites into such categories – it is sufficient to note that a single site is experienced differently at different times. These ambient perceptual phenomena contribute to the overall experience of a rock art site and, although they are temporally dependent, may well have played a role in site selection.

Conclusions

The experience of being at a rock art site is a composition of several elements, some of which have been explored here. Each of these facets influence the act of visiting a rock art site, and it is quite possible that some, if not all, of these elements were consciously chosen by the producers of the rock art. These sites have been discussed in terms of 'places', sometimes in terms of 'already existing places', which were chosen out of many for their perceptual qualities, because they alone will provide the visitor with the desired experiences which will augment the meaning of rock art imagery. In a sense, the bold titles in this section form a list of selection criteria, things which ought to be present at a place before rock art can be produced there.

Although this exploration has been a phenomenological one, and the presence of a moving, sensing human actor has been implied throughout, usually by the term 'visitor'; this actor has remained implicit. At times, I have stood in for the visitor, and have described my own experiences; other times, the descriptions have been more general, and have involved an anonymous and fictitious actor. But an important fact which remains to be discussed is that these rock art sites are only places *when they are inhabited.* To illustrate this, consider an empty rock face which exhibits several of the qualities discussed here, but is located high up on a canyon wall and cannot be accessed. Thought the spot fits many of the criteria and is in that respect suitable for the production of rock art, if it cannot be inhabited, it cannot be a place. It therefore remains undifferentiated, just part of the land. Similarly, a nice alcove with a back wall suitable for painting cannot

be a place if it is too small for a person to enter. Places, therefore, exist only through their relationship with the human body. They must be the right size, and suitably located, so that they may be entered and inhabited. Only when a spot is experienced, and is defined through its relationship with the human body, does it become a place. When rock art is added, the place becomes an artefact through these residues of agency (the art), and the place is brought further into the human spheres of action and cognition. In the end, the experience of a rock art site not only contributes to the meaning of the place and the art, but is essential to the very existence of the place *as a place*.

The remaining section of this chapter brings the human actor to the forefront. Though a discussion of how the actual art is experienced, BCS rock art sites are transformed from decorated rock faces in desert canyons to places where the agency of the artists, and of the art itself, can be intimately encountered. Rock art sites are places of social interaction, where identities and relationships are forged, maintained, and contested. Similarly, rock art images, rather than being mere representations of things, are things in themselves – actors in fact, with their own agency, capable of influencing people in profound ways.

Experiencing the Art

In exploring various experiences afforded by this rock art and its surroundings, we have moved inwards, from the macro level of the landscape of the study area, to the micro-topographies of individual sites. These discussions have focused on embodied perceptual experiences of land and rock. We have now come to the topic of the images, and must consider how they are similarly experienced. Images, which are produced with intent and make reference to other things and ideas, require careful consideration. This section is therefore prefaced by a brief exploration of some major themes in semiotics, which will allow us to understand how images function on a mental level. From there, we move into Gell, consider how his theories fit with these semiotic themes, and how they move beyond them. Finally, we consider not only how images work, but also what images *are*; working towards an ontology of BCS rock art images will help us explore they ways in which they may have been experienced.

Images

In semiotic terms, images are signs – they are things which point, make reference to, or simply stand for other things or ideas. In its initial manifestation, semiotics was concerned primarily with signs in language – words – and how they convey meaning by making reference to things or ideas. While images should not be thought of as the visual equivalent of linguistic signs, the three theories to be discussed apply also to visual signs, with a few important exceptions. These three theories come from the works of Saussure, Peirce, and Barthes. Each of these writers made major contributions to the study of semiotics and linguistics in general, but each is remembered outside their field by the following theories.

Saussure

In the language of Saussure (1916 (1983)), signs are comprised of two elements: a 'signifier' and a 'signified'. The signifier is the form which the sign takes, and the signified is the concept or thing it represents. Together, the signifier and signified comprise the sign. Today, the signifier is typically thought of as the actual object which is the sign – a printed word, a sound utterance, an image – and the signified as the actual object or idea to which the sign refers. In a painting of an apple, for example, the signifier is the painted apple, and the signified is an apple. Saussure, however, considered both signifier and signified to be objects of consciousness, which are both embodied by the sign.

Saussure focused on linguistic signs, which he considered to be arbitrary. The word 'apple', for example, has no existential link to an actual apple; the connection is conceptual and relative to the English language system. This is not the case with certain visual signs, which resemble the signified in a formal way. This distinction between linguistic and visual signs is very important, for if linguistic signs are arbitrary, then words do not reflect the world (Chandler 1995). Because some images do reflect the world, there is an ontological connection between signifier and signified, albeit a complicated one: a painting of an apple *looks like* an apple, and is not really an apple, but

nonetheless embodies and presents the idea of 'apple'. This relationship will be further explored as we move on.

Peirce

From the works of Peirce (1931-58), we draw upon his three modes of sign: icon, symbol, and index. These are not types of signs, for a single sign can be more than one of these at a time. For this discussion, we consider only visual signs. It is important to note that Peirce did not work from Saussure's dyadic of signifier and signified, but rather proposed a more complicated triadic model (Chandler 1995). For the sake of simplicity, this discussion continues with the modern version of Saussure's dyadic, in which the signifier is the sign, and the signified is the thing to which the sign refers.

Icons are signs in which the signifier bears a likeness to the signified. This likeness is usually grounded in a perceived visual symmetry – the signifier *looks like* the signified. The icon is equivalent to the representational image, and is often called upon when speaking of rock art. Because icons look like things in the world, the relationship between signifier and signified is not normally culturally contingent, so the connection can be drawn by most everybody.

Symbols are signs in which the signifier bears an arbitrary relationship to the signified. These are perhaps the closest images ever come to Saussure's linguistic signs – the relationship between signifier and signified in both words and in symbols is based upon cultural convention. Rock art motifs which are apparently non-representational are usually considered to be symbols, and are basically abandoned, as researchers find no hope in arriving at the conventions by which a symbol is connected to a thing or idea.

Finally, an index is a sign which bears an existential relationship to the signified. This relationship is usually causal, and the existence of the signifier is brought about by the signified. The classic example is smoke as an index of fire. An index might also bear a non-causal relationship; for example, an arrow is an index of the thing to which it points.

At first appearance, it would seem that a rock art motif is rarely an index, but as we move into the work of Gell, we will discover that all art objects are in fact indexes.

The rest of the discussion will focus on icons and indexes as these, unlike symbols, stand in an existential relationship to what they signify. Symbols are based upon cultural convention, and are difficult to consider ontologically. Moreover, the focus of this section will be the anthropomorphic images in BCS rock art, as they comprise the majority of all motifs. These images are icons and indexes, but are probably not symbols.

Barthes

The final semiotic system to be discussed is the distinction between denotative signs and connotative signs, first set out by Barthes (1967). All signs discussed so far have been denotative, or first-order signs. These consist of a signifier and a signified, which are connected with a straightforward relationship; for example, the relationship of visual similarity between signifier and signified in icons. Denotative visual signs are literal representations of things.

Connotative signs are second-order signs in which a denotative sign is used as a signifier which refers to another signified; this is illustrated in *Figure 3.31*. The blue signifier and signified come together to make the green sign, which is a denotative, first-order sign. This sign combines with a second signifier (yellow) to create a second, connotative sign. In this shift, the first-order signified is not eliminated, but it is often impoverished. Whereas denotative signs are digital, connotative signs are analogical, as the sign itself comes to refer to a further idea.

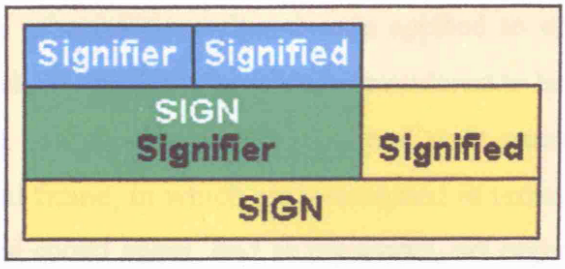

Figure 3.31 - This graphic illustrates the relationships between first-order denotative signs and second-order connotative signs. From Chandler 1995.

Another way of understanding the distinction between denotative and connotative signs is to speak in terms of metaphor. Metaphors are second-order, connotative signs, which are based upon first-order, denotative signs. Consider as an example an image of a bighorn sheep from BCS rock art. As a denotative icon, the image of a sheep is the signifier, and the signified is an actual physical sheep. The image on this level is purely representational, and no cultural values are attached to it. The image of a sheep, however, might be a metaphor, in which case the image is also a connotative sign. As a connotative sign, the image might refer to hunting. Because connotative signs are second-order signs, both the image of a sheep and the actual physical sheep together become the signifier, and the signified is the metaphorical value to which they refer. Metaphors therefore apply to both images and to the things that the images represent.

Although this discussion has been framed around the difference between denotative and connotative signs, all signs are in fact both denotative and connotative. The distinction describes only the form of the relationship between signifier and signified, and whether that relationship is direct or analogous. In studying rock art, considering motifs only in terms of denotation brings out very little of the meaning of the images, but considering them in terms of connotation opens up a wide range of possible meanings. These can be narrowed down by considering the context of the image, both in terms of its relationship to other images, and in terms of the landscape in which the image occurs. The next chapter does just this.

Gell

We finally turn back to the work of Gell (1998, 1999). Although Gell was not concerned primarily with semiotics, his use of Peircian terminology brings this discussion together. Gell was in fact critical of semiotics when it was applied to art objects in terms of a linguistic model, in which images and objects are considered to be primarily conveyers of meaning (Layton 2003). Gell was instead concerned with examining art objects from within an anthropological frame, in which art is analyzed in terms of social relationships. His focus is therefore the social agent, and in his works, art objects are considered to be

indexes of social agency. Gell's usage of the Peircian term 'index' is innovative, as is his assignment of index status to all art objects.

An art object can be an index of the social agency of the artist or, if the art object is an iconic representation of something animate or volitional (a person, a spirit, an animal), the object can be an index of the social agency of the thing it represents. Recalling the discussion of Gell in Part II, we remember that he is primarily concerned with the agency of the artist, but in the context of BCS anthropomorphs, the agency of the beings represented by the images is perhaps more significant.

The anthropomorphic forms in BCS rock art are both icons and indexes. As icons, they (presumably) resemble the beings they represent. As indexes, they embody the agency of those beings. Ontologically, these figures are therefore more than just images; their being extends into the world in a corporeal manner, as they body-forth social agency, and can be interacted with on a physical level. The line separating signifier from signified begins to blur at this point, and we approach a co-existence of thing and idea. These anthropomorphs are objects with their own entity status which do not just encode meaning, but also affect changes in the social and cosmological milieus. "In art of this kind no distinction is felt between what a thing 'is' and what it 'signifies'" (Coomaraswamy 1956, 38).

These anthropomorphic forms had their own histories, their own agendas. Archaic hunter-gatherers produced these images in order to bring those entities into being, or perhaps to draw them into the human level of existence. Ultimately, the images were produced in order to forge relationships with those entities. The sites were subsequently visited for the purpose of maintaining, or at times contesting those relationships. By exploring what can be deduced about the production and consumption of BCS rock art, these relationships, and the being of the images, can be better understood.

Viewing Rock Art

On first reflection, the spatial relationships between the images at a rock art site and the viewer seem to be straightforward: the images are on a vertical rock surface, and the viewer stands in front of that surface, looking across at the art. In the BCS tradition, the situation is rather more complicated. Most sites lack a single optimal viewing point from which the rock art panel may be clearly seen in its entirety. This means the visitor is required to constantly move his or her body in relation to the rock, taking in only one small part of the panel at a time. Even when standing still, one's gaze is directed up, down, or around the stone surface. The spatial relationships between the viewer and the images are in constant flux. The size of the images, their position on the rock, and the physicality of the place together influence how and from where the images are seen, thereby forcing the viewer to adopt certain postures and movements in his or her quest to experience the rock art. These kinaesthetic effects were possible seats of meaning, and may have borne significance.

A primary distinction may be drawn between sites which allow for stationary viewing, and those which require some degree of movement. Sites with a single large image, or a tightly-bound grouping of smaller images, allow the visitor to remain in one place while looking at the rock art. But even at these sites, one must initially move around in the vicinity of the art in order to arrive at an optimal viewing point, neither too close nor too far away from the figures. Furthermore, if the visitor to a site is not familiar with the layout of the panels, some exploration of the vicinity might take place in order to determine if there is more art present than what is first seen. Exploration occurs on a smaller scale too, as one's eyes scour a densely-decorated panel, picking out one image after another, then stepping back and re-focusing to see the image's relationship to the whole.

Only one third of the sites documented (n=18) consist of panels small enough to allow for exclusively stationary viewing. The panels are overhead at 11 of those sites, requiring the visitor to look up at the images, which are therefore dominant over the viewer. At such sites the visitor must adopt a stance at some distance from the cliff to see the images, and

the physicality of the site usually does not allow one to climb to the panel for a closer look. The art is often 'out of reach', and I often found myself frustrated at these sites, wanting to get closer for a good look at the images but unable to do so. While it is possible that in the past the land was different, and some of these sites would have allowed closer inspection, most do not appear to have changed, suggesting the artist(s) used ladders or scaffolds to produce the images. The image content of these sites ranges anywhere from single anthropomorphs to full panels of more than a dozen images.

At five of the stationary sites, the images are found at eye level. Each of these sites allow the visitor to stand directly in front of the images to view them. Three consist of a single anthropomorphic figure, one is a small group of two anthropomorphs, and the final site is a complex but very small composition of dozens of motifs. Such sites are certainly a minority among those documented.

The remaining two stationary sites are distinct. At one site, a recess beneath a large solitary boulder allows enough room for one person to stand inside. There are images painted on all three sides of this recess, some arching slightly overhead. The visitor is therefore able to remain stationary, but must turn and look around to see every figure. At the other site, a single small anthropomorph is incised on the low ceiling of a cave, requiring the visitor to crouch and look directly at the image at close range.

Sites which allow for stationary viewing might seem to promote a degree of passivity in the consumption of the rock art, but it should be remembered that the sites still need to be reached. While a few of these sites are arrived at without difficulty, many are situated high up canyon walls and require considerable climbing to arrive at. Those panels found far overhead are in a sense never arrived at, and the images therein can never be seen clearly, introducing a degree of ambiguity into such sites. They remain physically and visually inaccessible. Those sites which are at eye-level are experienced more immediately; it is interesting that three of five of these low panels consist of single, large anthropomorphic figures which are confronted one-on-one in a very intimate way.

The remaining sites documented for this study all require some degree of movement to experience fully, though four sit someplace in the middle. These four sites consist of between two and six groups of images; each group allows for stationary viewing, though the visitor must move between each of these 'nodes' to see all of the panels. This movement occurs parallel to the rock face, along flat ground. At these sites it is possible for one to step back away from the decorated face far enough to see all of the groups at once, but from such a distance, the images are too small to make out. The images are near eye-level at three of these sites, but at the fourth, three small clusters of motifs are found several metres up, and must be viewed from below.

Movement at the remaining 40 sites takes several forms. Because the panels in this tradition are nearly always wider than they are tall, one must move parallel to the cliff face, along the length of the panel, looking across or up at the images. Whether the images are around eye level or far overhead, one's head and eyes are constantly surveying the rock face while one walks along the panel's length. One might stop several times along the way and focus on a single image, then move along again. Usually, one is free to do just this, though occasionally, the physicality of the site places constraints on how or where one can move in the vicinity of the art.

At gallery sites, for example, there is often a ledge present beneath the decorated panel. If the visitor remains in the wash bottom and looks up at the images, the visitor can move as he or she pleases. From this distance, however, details in the images are not visible, so one is encouraged to climb onto the ledge for a closer look. At the three primary gallery sites, the ledges beneath the panels can only be accessed from the left side. This means every visitor to the site must climb up the same way, and therefore, as he or she walks along the ledge from left to right, the images are experienced in the same sequence. This constraint is present at other sites too. Of all sites which require movement, a quarter of them *must* be accessed from either the right or the left of the panel. There is a slight preference for left-hand approaches, but there seems to be no correlation between the direction of approach and the sort of imagery present. This constraint regarding the

direction of movement applies only to close-up viewing of the panels, for if the visitor moves away from the rock, movement is free.

Movement also takes place perpendicular to the decorated panels. This is most influenced by the scale of the motifs present at a site, which can be varied. Larger images require one to step back further from the rock than smaller images, and life-sized figures with fine details require the visitor to move both forwards and backwards to fully experience the same image. Though, as pointed out in an earlier chapter, this is not always possible. A few sites may be viewed close up, but do not allow one to step back far enough to clearly see the whole panel at once. Still other sites can be seen easily from afar, but do not allow for close-up viewing, making it impossible to clearly make out details present in the figures. At these sites, one is constantly moving around, trying to arrive at a good spot to view the figures, but ultimately failing to do so.

Finally, vertical movement can sometimes occur. This usually happens when the visitor is climbing up onto a ledge to get a closer look at a panel, but some larger sites are not accompanied by flat ground below, so one must clamber over rocks or other obstacles while moving along the decorated face.

Most sites documented for this study fall into this general category of combined parallel and perpendicular movement, sometimes accompanied by short climbs. Visitors to these sites are constantly changing their position in relation to the images, depending on where they wish to direct their gaze. In changing their position, visitors necessarily change their relationship to the images. For example, large anthropomorphs viewed from afar appear small, and the viewer is dominant. But upon moving closer to such figures, their apparent size grows, and eventually they might turn out to be larger than the viewer; the image then become dominant, perhaps staring down at the visitor.

These relationships are further complicated at sites like the Great Gallery. When the visitor is standing on the ledge below the panel, only one or two anthropomorphs may be seen at once, and the figures loom high above the viewer in a very commanding position.

Upon moving off of the ledge and back away from the panel, the figures appear much smaller and less imposing, and more of them are visible at once. These changes in the ways an image or panel is perceived as one moves around in the vicinity of a site alter the relationships between the visitor and the images. Variability is created in the intimacy of the relationship between the visitor and the rock art – one may choose to remain at a safe distance, and maintain control over the entire group of anthropomorphs, or move in close, thereby being dominated by them as they tower overhead. Again, details in the images which can only be seen up-close encourage intimate viewing, but the vaguely human forms can be intimidating.

The relationship between the images and the underlying rock also changes as one moves. Approaching a site, rock art figures might appear dwarfed by the large cliff on which they are painted, but up close, their relationship to the cliff face becomes blurred, and the images, rather than the cliff, come to dominate one's visual field. Constant movement therefore alters figure-ground relationships, as well as relationships between the visitor and the images.

Finally, there are a handful of sites which stand apart from the rest by forcing the visitor to adopt very particular postures or movement patterns. Four sites are found in places with low ceilings, and the visitor is therefore required to crouch, kneel, or otherwise contort in order to enter these places and view the images. Other sites require a person to stand on a small, high ledge, sometimes many metres above the ground, in order to see the images at all.

One final site departs from the normal pattern of 'images found on a cliff face' in an interesting way. Here, several upright blocks of stone are found on a promontory which stands high above the intersection between a river and a dry valley (Figure 3.32). The spot is accessed by a narrow strip of land which stands high above the floors of these two gorges. This natural path ends in a fairly large and well-defined place, surrounded on three sides by steep drops. Many of the blocks which stand on this promontory are decorated with pecked images. Not all of the images here are Barrier Canyon Style

figures, but at least three different faces contain BCS motifs. Movement at this site occurs in three dimensions, as the visitor climbs around and between these blocks looking at rock art scattered among them. One small panel of BCS figures is quite well hidden, and represents the only know BCS panel placed low to the ground, requiring the visitor to crouch or sit to see the small anthropomorphs.

Figure 3.32 – This photograph was taken from the middle of the promontory leading to the site. The upright blocks in the centre of the photograph are full of rock art (site 411-2).

By now, the physical relationships between the rock art and the visitor are becoming complex. The size of the images, and their placement on the rock, push and pull a person around the landscape. By changing one's position, the apparent size of the figures changes, as does the number of images visible, and their relationship to the rock that supports them. This movement creates variability in the intimacy of the relationship

between viewer and viewed. Earlier we explored how the physicality of paths and places dictate how and where a person moves – it seems the rock art does as well.

This discussion can be seen in a different light if we return to the ideas presented at the beginning of this section regarding the ontology of the images. It was suggested that some of the rock art motifs might have been seen by Archaic people not only as pictures, but as things-in-themselves. Further, if we follow Gell in considering art to be in possession of social agency, animateness is bestowed upon the rock art. Combining these ideas with the fact that BCS rock art is dominated by anthropomorphic images suddenly populates the canyons with embodied, agentive forms, which affect the viewer in a very real way. If these anthropomorphs were animate and agentive, these variable physical relationships have social resonances.

If this reasoning is accepted, the anthropomorphic figures of BCS rock art become social agents with their own personhood, which can affect changes in the causal milieu. It is not, therefore, enough to talk of merely viewing rock art, however active the act of viewing might be. We must instead consider encounters with, most especially, the larger anthropomorphic forms, in terms of social engagement and performance.

Engaging with Rock Art

The anthropomorphic figures in BCS rock art are embodied. They contain an agent who requires acknowledgement and calls forth certain modes of behaviour. To deal with this conceptually, it is useful to bring out Pinney's notion of 'corpothetics' (Pinney 2001, 2004). Pinney coined the term in response to Gell's call for an abandonment of aesthetics in anthropological studies of art. Gell believed aesthetic judgements are entirely too passive to be useful for understanding agentive art objects. Pinney (2001) suggests that instead of abandoning aesthetics altogether, we ought to make a shift from aesthetics to corpothetics. Whereas aesthetics is primarily mental in operation, corpothetics is visceral and embodied. Corpothetics allows one to discuss the efficacy of an image, and to explore "not how images 'look', but what they can 'do'" (Pinney 2001, 8). If embodied and agentive anthropomorphic images require action on the part of the viewer, then a

corpothetic appreciation of the image – that is, a visceral, bodily acknowledgement of the image's efficacy – will give the image what it needs to function properly.

Just as the physicality of a place dictates how a person moves through it, the physicality of an image prescribes the process of how it is beheld. The size, position, and number of images present all act to control the visitor's experience of the rock art. The subject matter of an image, however, plays a primary role. Geometric motifs, for example, will not have a strong corpothetic effect on the visitor. Their size, form, and position will certainly affect the viewer's movements, and the meaning of the form may call forward certain behavioural restrictions, but geometric motifs do not resemble living things, and do not body forth animateness and human-like agency in the way anthropomorphic images do. Paintings of animals certainly possess some degree of personhood, but within the BCS tradition almost all of the animals depicted are quite small, on the scale of centimetres, and therefore do not have the same efficacy as life-sized anthropomorphic figures. It is therefore the anthropomorphs that are highlighted here; indeed, this category of figure makes up the majority of motifs found in this rock art tradition.

The size of the anthropomorph is an important element affecting a person's encounter with the image. Small figures, drawn on a scale of centimetres, will not have the same effect as large ones. A visitor to a site with one or several small anthropomorphic figures will dominate over the images, even if they outnumber him or her. This is not to say the images lose their efficacy, for they remain powerful, but when a small figure or group of figures can be intended entirely within the visual field of the visitor, there is a degree of control over the images which is not present with larger figures, and the bodily presences they invoke are less imposing.

Those figures which are two or three metres in height, however, are altogether different. Standing in front of a life-sized painted anthropomorph becomes an act of close association, even confrontation. There are a number of sites in which this is possible. One in particular, shown in *Figure 3.33*, consists of a single painted anthropomorphic form, very simple and plain in design: only a torso and head are depicted, without appendages,

eyes, or other embellishments. The figure is life-sized, and positioned such that an adult standing in front of the rock face will find his or her head about level with that of the anthropomorph. This creates a very intimate social encounter. As I did just this, standing alone in front of the image, I admit I felt rather uncomfortable, and did not linger.

Figure 3.33 - This lone figure, painted life-sized, is positioned such that it may be directly confronted by the visitor (site 406-1).

The nature of the confrontation depends not only on the size but also the number of figures present, and where they are positioned on the rock face. If a person stands alone at the Great Gallery, where dozens of life-sized anthropomorphs are positioned over one's head, then he or she is subordinate and outnumbered. Here there is almost a reversal of the roles of viewer and viewed, as the visitor contends with a crowd of embodied figures which dominate over him or her in size, position, and number. The Great Gallery, however, is a public site, and can support many visitors at once. A large group visiting

the site would instead reciprocate the crowd of anthropomorphic forms. A group of visitors, however, must remain at some distance from the panel, so the apparent size of the figures is greatly reduced. Only a few at once can stand directly in front of the images, from which point the anthropomorphs are experienced intimately close.

These different relations of intimacy between the visitor and the anthropomorphs therefore depend on the nature of the art, but also on how many visitors are present and where they stand. Thus the same image or set of images can be experienced in a number of different ways. This leads us to imagine the possibility that visitation to these sites may have been accompanied by a set of behavioural restrictions. Perhaps in Archaic times, it was not appropriate to visit the Great Gallery alone; it may even have been considered unsafe to encounter such a large group of these anthropomorphs without company. Conversely, more intimate sites, with a few figures housed in a small and well-defined place, might have been reserved for private visitation, where intimate social encounters with the anthropomorphs could take place.

A final property of the art which influences the visitor's experience is the form of the anthropomorphic images. A highly abstracted anthropomorphic figure is more difficult to relate to than a more naturalistic image, and will elicit a different corpothetic response. While none of the anthropomorphs in this rock art tradition are completely naturalistic, some sport arms and legs, hands and feet, while others are just a couple of lines vaguely suggesting a human form. Those anthropomorphs which more closely resemble physical human bodies are much more familiar forms, and possess a much more potent personhood than more abstracted figures.

Consider, for example, the three images in *Figure 3.34*. Each anthropomorph exhibits the same basic body plan – a torso topped with a head – yet each is very different. The leftmost figure is neither human-shaped nor naturally proportioned. Its body is rather ephemeral, comprised of just vertical lines, and its head is small and highly abstracted. When compared with the other two, it seems less solid, and does not recall the physicality of a body in the same manner. The middle image is more human-shaped, and the

proportions are more naturalistic. The solidly-painted body and head give it a physicality absent from the first image, and the presence of hair ands a hint of realism. Finally, the image on the right, in addition to being quite naturalistic, boasts a single arm and, though not visible in this small photograph, eyes. Eyes are almost exclusively the only facial feature represented in the entire BCS tradition. They reciprocate the visitor's gaze in a very powerful manner. Even in the absence of visitors, anthropomorphs with eyes continue to look out from the rock face, exerting their own gaze over the place.

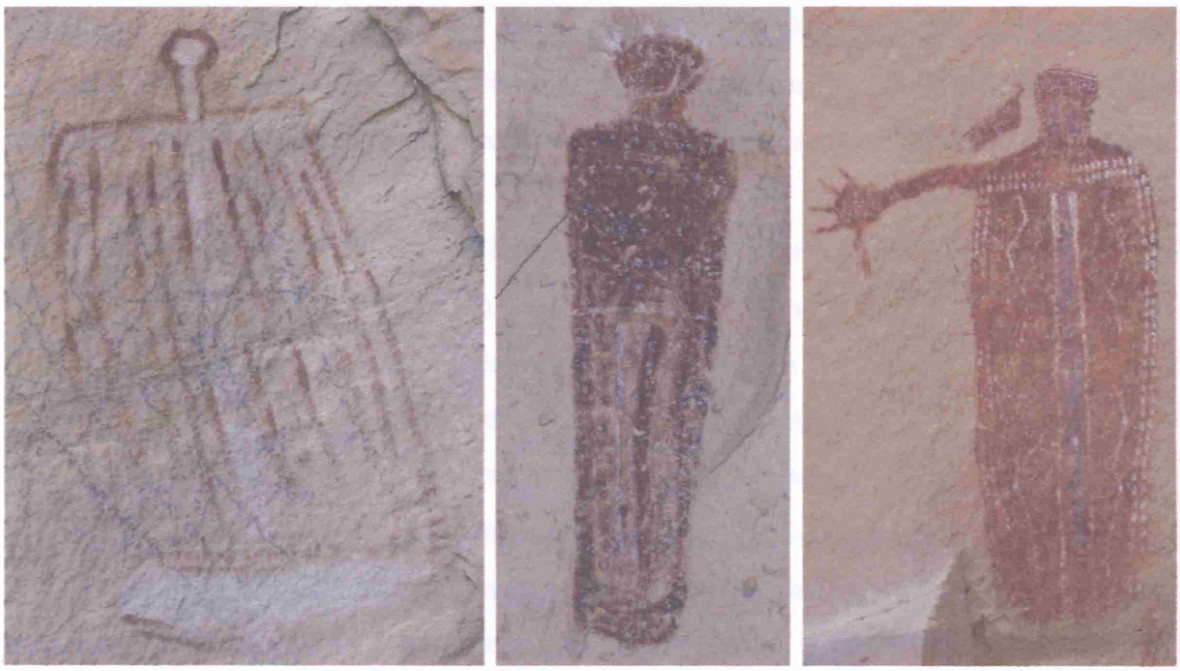

Figure 3.34 - These three anthropomorphic forms vary in their realism, and elicit different corpothetic responses. Not to scale (sites 604-1, 617-1, and 621-1).

These three images would have been experienced very differently. The shape of the figure, as well as the presence or absence of arms, legs, and other naturalistic features, significantly changes how the viewer responds to it. Some further dimensions of the art can clarify the nature of those responses.

When these anthropomorphic images were produced, bodies were created on canyon walls. The images subsequently embody and preserve the agency of the artist, and of the being the figure represents. Indeed, the beings depicted may well have been present in the

image. By painting anthropomorphs, and bringing social agents into being, a relationship is formed. If the act of making these images resulted in the foundation of a relationship between people and the entities embodied in the rock art, the act of visiting the sites might have acted to maintain that relationship. As a visitor to a rock art site stands in the presence of these embodied anthropomorphic forms, he or she becomes assimilated into the corporeal space of the images. The anthropomorphs, through their form, size, and position, dictate to the visitor how they are to be viewed, and action at the site occurs with reference to the depicted bodies. At the same time, the reverse is true: the images are assimilated into the corporeal space of the visitor. The anthropomorphs and the visitors therefore act in concordance, and it is through performance that the efficacy of the images is revealed, and the meaning of the art is communicated.

Performance at rock art sites could have taken any number of forms, but if the images were indeed as potent as this study suggests, then performances were probably ritualized. This would require sacralized spaces, which could explain the observed preference for naturally-bound places for the production of rock art, as well as the frequent placement of images onto qualitatively different rock surfaces. Ritual performances may have been public or private. If public, we can imagine larger sites being host to a group of spectators, gathered in the spaces in front of decorated panels, while other individuals acted on the often-present ledges or platforms below the images. If a fire were made between the actors and the audience (where hearths have been sometimes discovered), the light would cast shadows of the human actors on the decorated surface, creating temporary images which would interact on a very unique level with the painted forms. At many sites, these shadows would have looked very much like the painted anthropomorphs.

Private ritualized performance at rock art sites may have taken the form of vision quests, or perhaps actions took place which were intended to communicate with, appease, or draw power from the anthropomorphs. Private visitation could well have been less formalized too, taking the form of a quick visit, the giving of an offering, or even a quiet acknowledgement in the form of a glance from the canyon bottom while passing by.

However sites were used, the act of visiting them probably functioned to maintain intimate contact with the beings represented by and perhaps even present in the anthropomorphic images, acknowledging their presence and power, and thereby maintaining a social relationship with the depicted entities and fulfilling some need or deficiency on the part of the visitor(s). Ritualized visitation by groups would also have affected social relationships between those people present, and may have served to validate belief systems associated with the art, while at the same time promoting social and ideological solidarity. It is clear, however, that the relationships between people and the art were not always maintained – sometimes, they were contested.

Altering Rock Art

There is evidence at a number of BCS rock art sites that images were engaged with physically, resulting in the partial or total destruction of the paintings. Such physical alteration either focused on specific areas of an image, or targeted entire images or groups of images as wholes. While it is not known whether this alteration was performed by Archaic peoples or later groups, it does nonetheless provide evidence for the suggestion that these images were not only potent, but perhaps even alive.

Targeted alteration involved pecking out very specific parts of an image, usually the head, chest, hands, or feet of both anthropomorphs and zoomorphs. Such an action might have been intended to remove power from the image; essentially, to 'kill' it. *Figure 3.35* shows two examples of this practice. In the first image, the heads of three small anthropomorphs, as well as the head and feet of a zoomorph, have been pecked away. In the second image, the shoulders and/or chests of several anthropomorphs have been similarly targeted. The person who made these marks recognized the efficacy of these images, but at the same time attempted to remove that power from them. These marks seem to be evidence of a contested relationship.

Non-targeted alteration was a rather different sort of act. Instead of focusing on vital portions of images, these past actions were aimed at whole figures or groups of figures. They involved covering images over with mud, abrading them off of the rock face, or even repeatedly hurling projectiles at the figures with enough force to chip the stone. By

covering, removing, or harming the images, their efficacy was first recognized and then negated, again contesting the relationship between the viewer and the images. These physical alterations of the rock art strongly suggest that the anthropomorphic forms were not just representations, but were animate, and were treated as such.

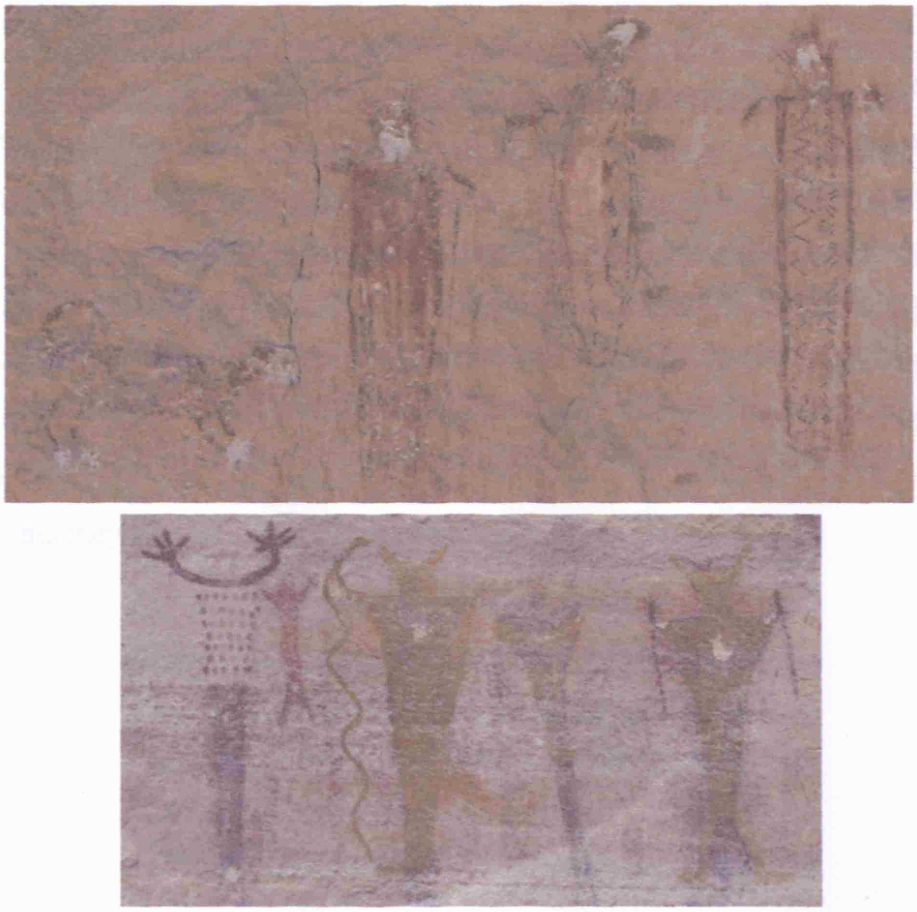

Figure 3.35 - These two images show examples of targeted alteration (sites 617-1 and 413-2).

The fact that rock art images were at times physically altered suggests that their agency was not dependent upon the presence of other (human) social actors. The very fact that the images existed in their original form meant they could *do* things; only by altering them, and thereby denying them of their personhood, could they be subdued.

Experiencing the art was not a passive activity, but rather one which involved corporeal engagement, performance, and the creation, maintenance, and contestation of social relationships. The being and meaning of these images was defined through interaction

with them in social and ritual settings. As Gell suggests of all art objects, these rock art images have no existence independent of their manifestation in social interactions. Within the world of Archaic hunter-gatherers, these images did things.

When rock art places and rock art images are explored phenomenologically, emphasis on movement and posture is revealed. In an animate universe, the elements of the landscape and of the art which place restrictions on a visitor's movement and posture are not seen as by-products of the placement of images in the landscape, but rather as the result of volition on the part of the land and the art. In one sense, this volition can be attributed to the artist, who chose where and how to produce rock art; in another, this volition can be attached to the anthropomorphs, who bring visitors to them, or even to the forces which created the land, and provided places for the production of rock art. In the next section, the art is explored in detail, and some suggestions are made regarding what the images represented and embodied. Whatever or whoever these anthropomorphic and other forms were, it seems they played a significant role in Archaic society.

Part 4 - The Art

Some very general characteristics of the rock art have been discussed in previous chapters; here, it is explored in depth. This chapter is largely descriptive in nature, but does at times venture to explore possible significances attached to various motifs. Instead of analyzing the art on a site-by-site basis, the motifs are here divided into a few broad categories – zoomorphs, polymorphs, anthropomorphs, and other forms. These categories are artificial constructs imposed onto the rock art, and this discussion often divorces the images from their context; however, the chapter following this one explores individual sites, and discusses the images relationally. It follows that the meanings explored in this chapter are not concrete associations, but rather possibilities. Because of the polyvalent nature of rock art, these meanings may be subsumed beneath other, site-specific significances. The artificial categorization of motifs adopted here is therefore not problematic; instead, it provides a useful framework within which to discuss the art.

Throughout this section, statistical figures are given regarding the numbers of each motif type recorded for this study; refer to **Appendix D** for further numerical data, presented on a site-by-site basis.

General Data

The number of known sites in the BCS rock art tradition is usually said to be around 200. One researcher claims to have documented considerably more than 200 sites (Sucec 2001); however, he has admitted that his definition of the 'style' is much broader than most researchers are willing to consider (pers. comm., 2005). The number of sites in the tradition depends therefore on the definition of the style, but also on how a site is defined. Within the context of this discussion, a single site is considered to be a set of images or panels spatially bound within a tight area such that the distance between two units is no more than 30 metres. This definition suffices because images and panels in the tradition are tightly and very clearly grouped, often within naturally bound places, and are very rarely inter-visible. Individual sites are therefore clearly separated and distinct from one another.

A site may contain a single image, more than 50 images arranged in a single panel, or even several separate panels, each with one or more images. Panels, defined as a group of related images on the same bounded surface, vary greatly in size, and can be as large as three by 50 metres. Panels are typically flat and situated within a few degrees of vertical. All non-vertical panels have a negative slope, with the bottom of the surface further away from the viewer than the top. Panels are predominantly south-facing; more than half of the recorded sites are oriented somewhere between south-east and south-west.

All sites, with only one exception, occur on sandstone. Most images are painted, but some are pecked, incised, or abraded into the rock. Non-painted images may occur alone or in the same panel as painted images. Painted images were sometimes augmented with pecked or incised details, and pecked images were sometimes painted over.

Painting techniques vary greatly. Close inspection of painted images suggests pigments were often applied with the fingers, but brushes were probably used as well. Some images contain fine details which required the use of small application tools capable of producing lines just a millimetre wide. Pigments were also applied with a spatter technique at a few sites, perhaps by blowing wet pigment out of the mouth or through a hollow reed. Occasionally, dry pieces of unprepared ochre or charcoal were used like chalk, and figures were drawn onto the rock.

Most pigments appear to be mineral-based, though no tests have been done. The consistency of applied pigments differs from site to site. At times it is quite diluted, more like a stain than a paint, soaking into the porous rock. Other times the pigment is thick and heavy, creating a raised layer of colour on top of the stone. Even mud was used on occasion, applied to the rock with fingers.

Most motifs – indeed, most panels – are monochromatic. Red is by far the most frequent colour encountered, and is found at every site with painted figures. It occurs in a huge variety of shades, from bright red-orange to deep purple. Because the reflective properties of the pigments change with time, and the iron in the pigments continues to oxidize after

the image was produced, the present shades of red probably do not represent the originals. After red, white is most common. White was usually applied over a red base, adding detail to the images. Other colours are quite rare, but include yellow, blue, green, black, and various earthen tones. There does not appear to be any correlation between what is represented and what colour was used, apart from the colour white being used to add details to red motifs, a phenomenon present in a limited geographic area.

Images are usually neatly arranged and evenly spaced. Superimpositioning is rare, and usually takes the form of over-painting, or the addition of further details to an extant motif. In most panels motifs are arranged linearly side-by-side; occasionally, they form tight clusters. Rarely, images are tightly juxtaposed. This usually occurs at sites which are clearly the result of several disparate painting episodes, where new images were fit in between those that were already there. This can make assessing relationships difficult. When new images are visually similar to old ones, close inspection of the colours and painting techniques used can reveal which images belong to which painting episode.

The most common relationship found between motifs is that of 'anthropomorph with attendants'. A hallmark of the BCS rock art tradition is the presence of small zoomorphs, usually birds or ungulates, which are painted in close association with a specific anthropomorph, usually depicted hovering around the head and shoulders of the figure. These were usually painted at the same time as the anthropomorph, but in some cases appear to have been added later. These attendant forms are the most common way in which zoomorphs occur.

Zoomorphs

Snakes, birds, and ungulates are the three most commonly encountered zoomorphic motifs. Dogs and rabbits are also clearly depicted, but less frequently. The few remaining zoomorphs resemble other creatures, including insects and a possible bear, but these associations are dubious. Most zoomorphs are rendered quite naturalistically, both in form and in size, when compared to the stylized anthropomorphic forms. Only the

ungulates are depicted at a different scale: they are usually the same size as bird motifs, much smaller than the anthropomorphic forms.

Snakes

Snakes are present at 19 of the sites (~30%). Forty-four snake motifs were recorded, representing about 4% of all motifs. Snakes are almost always depicted as a wavy line, extending either horizontally or vertically along the rock face (only two snakes are not wavy). This line often lacks any details, but occasionally the form appears more naturalistic – some snakes include a bulbous head opposed by a thinning tail, open jaws, and/or an extended tongue. Snake forms are painted in red, with just a few exceptions.

In five sites, snakes are depicted alone, in no apparent relationship with any particular anthropomorph. Most often, however, the snakes are depicted in close association with a specific anthropomorphic figure. The most common relationship is that of snakes that are held by an anthropomorph. Eleven figures were documented which appear to be holding snakes; each is at different a site. The position of the snake varies: three anthropomorphs hold a snake in their right hand; four hold one in their left hand; two hold one or more snakes in each hand; and two hold the same snake with both hands. There is therefore no preference evident for how 'held snakes' were depicted. The sites containing these figures are scattered throughout the study area, and are clearly not a regional phenomenon. *Figure 4.1* shows an example of each.

Figure 4.1 - Four examples of snakes held by anthropomorphs. From left to right: a snake held in the right hand; a snake held in the left hand; several snakes held in each hand; one snake held with both hands (sites 414-1, 416-1, 618-1, and 607-1).

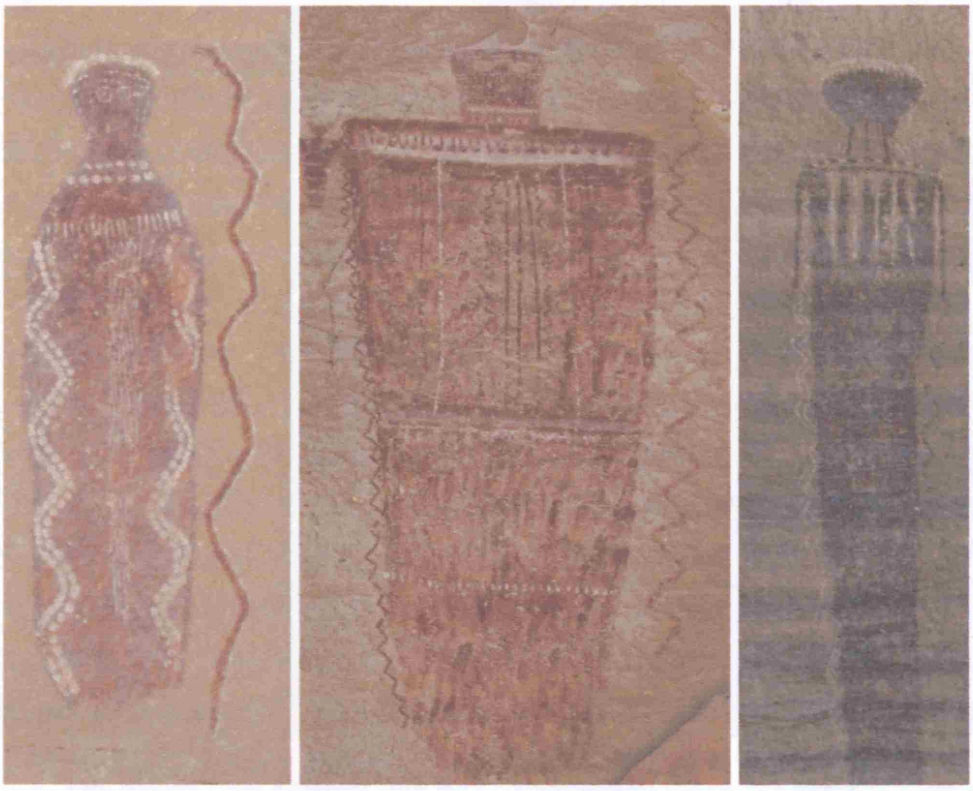

Figure 4.2 - Three instances of snakes flanking an anthropomorph. The snakes in the second two images are very stylized (sites 621-1, 617-1, and 614-2).

Another relationship between snakes and anthropomorphs takes the form of vertical snakes flanking the figure on one or both sides. This *is* a regional phenomenon, occurring only at three sites, all in the vicinity of the Maze District of Canyonlands National Park. *Figure 4.2* shows an example from each site. The leftmost picture shows a naturalistic snake, complete with a head and open jaws, depicted alongside an anthropomorph. The middle image shows two snake-like motifs closely flanking the figure's torso. In the right-hand photograph, there are two white, parallel, wavy lines to the left of the figure, and a single wavy line, this time in dark red, to the right of the figure. These wavy lines are very snake-like, and look similar to the snake in the first image.

While the snakes held in the hands of anthropomorphs look like snakes, the snake-forms in *Figure 4.2* are less naturalistic. The snake in the left-most image does have a realistic head, so despite its size, it is certainly a snake. The other two images, however, are unclear, but probably represent snakes as well; or, perhaps it is better to say they are connotative motifs, suggesting 'snake-ness'.

Figure 4.3 - Two figures from different sites with similar double snake-like motifs in place of arms (sites 428-1 and 605-1).

These stylized, snake-like motifs do occur in other ways. At two sites, snake-like forms come off of the shoulders of anthropomorphs (Figure 4.3). These occur as parallel lines, and seem to replace the figure's arms. These two sites are about 100 kilometres apart, yet both figures are strikingly similar in this respect.

Finally, vertical wavy snake-like motifs occur within the bodies of anthropomorphs. In fact, two of the three images in *Figure 4.2* show this. For the most part, this form of body patterning is restricted to the vicinity of the Maze District, most specifically the Great Gallery, where it is quite common. One other site, also within Canyonlands but quite far from the Maze, shows similar body patterning. Two figures from this site are shown in *Figure 4.4*. In the figure on the left, the patterning just takes the form of vertical wavy lines, but in the rightmost anthropomorph, the lines are decidedly snake-like.

Figure 4.4 - The two large anthropomorphs boast snake-like interior body patterning. In the rightmost figure, the lines are topped with bulbs, rather like snake heads (site 501-3).

One last site contains a particularly unique set of snake images. The panel shown in *Figure 4.5* has three snakes: one horizontal and not wavy, with its head near that of the larger anthropomorph; one vertical and wavy, with a head at the top of the figure; and a third snake, blue-green in colour, painted *in the mouth* of the large anthropomorph (see inset for close-up). This is perhaps the most unusual snake motif in the whole tradition.

In the end, snakes are depicted in a wide variety of ways. Those held in the hands of anthropomorphs, and those depicted on their own like the larger ones in *Figure 4.5*, all tend to be quite naturalistic. Snakes depicted in other ways are merely snake-like, and are perhaps not really snakes, but are instead reminiscent of snakes, exemplifying certain characteristics of the animal. The meaning of these motifs is perhaps not bound in their form, but instead in their relationship with the anthropomorphs. Figures hold snakes, are

embodied by snakes, and even incorporate snake-like forms as bodily appendages. It is as though these anthropomorphs are depicted as being *in possession* of the snakes.

Figure 4.5 - This panel has three snake motifs, including one depicted in the mouth of the larger anthropomorph. The inset shows a closer view (site 403-5).

An unpublished Master's thesis entitled *The Serpent Motif Of Barrier Canyon: Ritual And Symbolism In Ancient American Rock Art* (Burrow 2002) explores the snake motif in the BCS tradition. Burrow's aim is to demonstrate that "Barrier Canyon iconography reflects a type of snake ritual analogous to the modern Hopi Snake Dance" (2002, 68). After analyzing the ways in which snakes are depicted in the rock art tradition, in addition to arguing for the presence of other purely representative motifs such as rain clouds, animal pelts, and depictions of people sprinkling substances onto the ground,

Burrow concludes that BCS imagery straightforwardly depicts humans undertaking the *same* actions as those involved in Hopi Snake Dance rituals. Burrow admits that she is not looking for direct cultural continuity, but rather for some generally shared beliefs between Archaic and historic peoples; however, in the end, she fails to explain why these motifs are present in BCS rock art imagery, and what they mean in the Archaic context.

I do not believe, as Burrow suggest, that the snake motifs in this rock art tradition are necessarily depictions of actual physical snakes being manipulated by actual physical humans. Rather, these images are probably visual metaphors. Snakes are, after all, extremely unusual creatures, and are excellent natural models for sourcing metaphors. Firstly, snakes can be quite dangerous. While not all snakes present in the study are poisonous, two species, the Midget Faded Rattlesnake (*Crotalus concolor*) and the Western Rattlesnake (*Crotalus viridis)*, produce both hemotoxic and neurotoxic poisons, and have bites that can be deadly to humans. But moreover, snakes are liminal creatures (*c.f.* Schaafsma 1994, 53; Whitley 1994, 24-26). They lack limbs, but are able to move quickly and easily through desert terrain. They live both on and beneath the surface of the earth, dividing their time equally between two cosmological realms, ever shifting from the mundane to the sacred. They shed their skin regularly, and are in a sense continually rejuvenated, or reborn. Finally, rattlesnakes produce an unusual and extremely unnerving sound, unlike anything else heard in canyon country.

Snakes, in short, can connote the powerful energies that subsist between the visible world and the realm of the sacred; energies which, if not respected, can be deadly. The images in BCS rock art of anthropomorphs holding onto and being embodied by snakes and snake-like motifs may be ways of depicting the supernatural power these entities possess. The relationships between snake motifs and anthropomorphs in the rock art are relationships of control – the entities hold the snakes in their hands, keep them at their side, or contain them within their bodies. They are in possession of and in control of the power the snakes represent. Snake motifs are a metaphor, sourced in Archaic people's experiential knowledge of the world in which they live. Information from one domain (knowledge of snakes) is thereby transferred and used to structure experience in another

domain (understanding and expression of supernatural power). In a sense, the use of snakes as a visual metaphor turns the rock art itself into a phenomenological description of the world from the eyes of Archaic hunter-gatherers. This theme will recur again and again throughout this chapter.

A further and complimentary explanation for some of these zig-zag motifs arises from their formal similarity to lightning, which is perhaps the finest example of raw and unmediated power in the study area; indeed, this region of Utah receives more lightning strikes per year than any other part of the United States (Swan 1990, 143). Among the Navajo, snakes are associated with lightning because both move in a similar manner (McPherson 1992, 68). This connection is further explained by the fact that both snakes and lightning are capable of harm and of aid. Many snakes are poisonous, but are powerful spirit helpers; likewise, lightning can strike a person dead, but it is also a harbinger of rain, which is beneficial. But rain, too, can be deadly, as it can bring flash floods. Here we come to a matrix of rain-lightning-snake, which are conceptually related phenomena, and which can all hold similar metaphorical connotations of supernatural power, which if mistreated, can be as harmful as it is helpful.

Birds

Bird motifs are present at only 11 of the documented BCS sites (~17%), but because most of these sites contain several birds, there are actually more birds than snakes depicted in the rock art – 72 bird motifs were recorded; these make up 6% of all motifs. Of all zoomorphic forms depicted in this tradition, birds are the most detailed and most realistic. They are usually drawn with extremely fine lines, often just a millimetre wide, and may include wing and tail feathers, as well as beaks and taloned feet. They are sometimes depicted from the side, with both wings stretched out above the figure's body or positioned at either side of the body, or they are shown from the front, with one wing on either side. There is a slight preference for the former mode of representation.

Bird motifs are most often proportioned naturalistically relative to the anthropomorph they accompany; only a few instance of larger or smaller birds exist. Birds are also

depicted in a restricted set of relationships with the anthropomorphic forms – they are either seen flying about the figure's head and shoulders, or they are shown alongside the anthropomorph's body. The bird motifs are always separated from the figure they accompany. Never are they shown in the hands of the figures, as snakes often are.

Figure 4.6 - These three images each show one or more birds around the head and shoulders of anthropomorphic figures (sites 617-1, 413-2, and 607-1).

Figure 4.6 shows three instances of birds flying about the heads or shoulders of anthropomorphic figures. The figure on the left has a bird at each shoulder. The middle image shows two anthropomorphs, each with a relatively large bird above its head, and a possible third bird above the snake between the figures. The final image shows the head and shoulders of an anthropomorph; to the left of the figure's head is a faint bird, painted in a different shade of red and possibly added later.

Another example of this is seen in *Figure 4.7*. On top of the figure's head are two large, branched antennae. Nine small birds fly about the antennae in an anti-clockwise pattern. Also, to the left of the anthropomorph's head is a larger bird figure. The large bird is the same colour and style as the smaller figures; all are very probably contemporaneous. The reason for the size difference is not clear. Perhaps they represent different species of birds, or perhaps the size difference is not significant.

Figure 4.7 - Nine birds fly anti-clockwise about this anthropomorph's antennae; to the left of the figure's head is a larger bird (site 414-1).

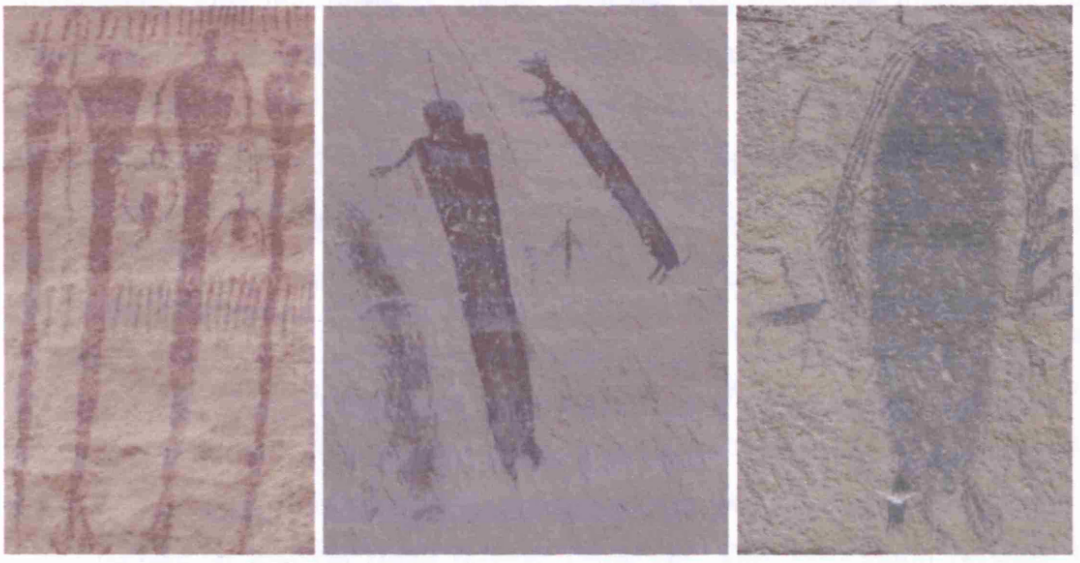

Figure 4.8 - These three images are examples of bird motifs depicted at the sides of anthropomorphs (sites 413-2, 614-2, and 403-1).

Bird motifs shown at the side of anthropomorphic figures do in fact tend to be larger than those depicted about the head and shoulders of figures. Some examples of this are seen in *Figure 4.8*. The image on the left shows two bird motifs in between a group of very attenuated anthropomorphs. In the middle image, a small bird can be seen to the right of the one-armed anthropomorph. The left image contains several birds. The vaguely

anthropomorphic figure which dominates the photo has a plant-like object draped over it; on the right side of this object are perched four bird-like figures. To the left of the figure is a larger bird.

These two ways of depicting birds in this rock art tradition – either about the heads and shoulders of anthropomorphs or alongside their bodies – represent a different relationship between the animals and the anthropomorphs than we saw with the snake motifs. In the case of birds, the animals are closely associated with the anthropomorphs, but do not appear to be controlled by them. They are not held, nor are they inside or even touching the figures' bodies. Rather, they are close to but still separate from the anthropomorphs. Instead of a relationship of control, there seems to be one of close association. The birds accompany the anthropomorphs. While these motifs are often referred to in the literature as 'attendant figures', there is no evidence that the birds are attending to the anthropomorphs. This phrase likely comes from the fact that these images are often interpreted as attendant spirits (*eg* Schaafsma 1994; Wellman 1975).

This is certainly one plausible interpretation of these bird motifs. They might well be depictions of 'attendant' or tutelary spirit animals. But birds, like snakes, are liminal creatures, and may have strong metaphorical connotations as well. While birds spend part of their lives on the ground and in trees, they are unique in their ability to take to the sky, and move about freely in the upper cosmological zone. This has lead birds to be considered messengers between celestial entities and humans, and birds often have strong shamanic associations through their connection with a shaman's ability to leave his or her body and partake in magical flight (Eliade 1964, 98). This association between bird motifs and magical flight is strengthened by the presence of winged anthropomorphs which are present at several sites; these motifs are discussed later.

It is not likely that these motifs represent actual physical birds, due simply to their close proximity to the anthropomorphic figures – an association that would not take place in real life. Rather, bird motifs are connotative. Perhaps, as snakes might connote supernatural power, birds connote communication with the supernatural. Whatever

meanings were associated with bird motifs, a pattern is forming – one of animals in non-naturalistic positions relative to the anthropomorphs. The anthropomorphic figures in this rock art are, at many sites, associated with animals, or rather, with animal qualities. The assertion that these zoomorphic motifs are metaphorical rather than representational is strengthened by the presence of minute ungulates at many sites.

Ungulates

Ungulate is a fancy term for a hoofed mammal. It is used here because the animals depicted are quite stylized, and it cannot be said whether they represent deer, antelope, or desert bighorn sheep, all of which are present in the study area. Many of the ungulate motifs, however, do show curved horns, so it is tempting to call them bighorn sheep, but other motifs lack horns, and may be different animals. Rock art researchers often use the term 'quadruped' to refer to this category of motif; however, because other four-legged creatures are depicted in this rock art, I retain the term ungulate to refer to these motifs.

Ungulates are the most common animal motif in this rock art tradition, and are found at 23 of the sites recorded; 123 total ungulates were documented, representing 10% of all motifs. Ungulates in BCS rock art are unique in the respect that they are most often depicted much smaller than life-sized relative to the anthropomorphic forms. In fact, they usually occur on the same scale as bird motifs. Furthermore, these small ungulates are sometimes depicted about the head and shoulders of anthropomorphs, just as the bird figures are. A crucial difference, however, is that while bird motifs do not touch the anthropomorphs, ungulates depicted in this manner actually *stand on* the head or shoulders of anthropomorphic forms. This occurs at five geographically disparate sites.

Figure 4.9 shows some examples of this. In the first image, an anthropomorph can be seen with a very faint ungulate on each shoulder. The middle image shows a figure with just one ungulate, perched on its right shoulder. The final image is interesting – originally it was a painted motif, the form of which is no longer clear. Sometime later, a piece of raw ochre was used to alter the image, changing the form of the body, adding a head and an arm, and depicting a small ungulate on the new figure's left shoulder.

Figure 4.9 - These three anthropomorphs have a small ungulate perched on their shoulder; the first image has one on each, though the left ungulate is quite deteriorated (sites 428-1, 614-1, and 604-1).

Figure 4.10 - This figure has a detailed ungulate on its shoulder; another small ungulate is depicted vertically below the anthropomorph's outstretched hand (site 621-1).

Another example is seen in *Figure 4.10*. This image is unique in a few respects. First, the large ungulate motif on the anthropomorph's shoulder is polychromatic, and is the only one of its kind. It contains more detail than any other ungulate motif in the tradition. White legs and a white snout can be seen, as well as some body patterning. The white vertical band in the ungulate's torso is a design usually seen in dog motifs, which are discussed later. Additionally, below the anthropomorph's outstretched hand, near the figure's thumb, is a second, smaller ungulate; this one monochromatic.

More often, ungulates occur in lines or series of four to 12 figures, usually shown approaching or adjacent to an anthropomorph, though in a few instances these groups are separate from anthropomorphic figures. These lines may be straight, arced, or even undulating. This mode of representing ungulates occurs at eight sites.

Figure 4.11 shows the most phenomenal example of this. A total of 28 ungulates are found in this image. The polymorphic figure which dominates the scene is just 17 centimetres tall, and each of the ungulates is about a centimetre in length. They form three separate lines – one approaching the polymorph from the left, one ascending towards the polymorph's right hand in a zig-zag pattern, and finally one U-shaped line on the right side of the image, crossing over the two lanceolate forms.

Figure 4.11 - A total of 28 ungulates, each just 1 centimetre long, form three rows in this unique panel (site 411-1).

More examples of ungulates forming lines or series occur in the rock art, but all are in a bad state of preservation and did not photograph well. One site shows a line of ten small ungulates approaching an anthropomorph's shoulder from the lower right, much like the first line in *Figure 4.11*. Two other sites depict lines of ungulates moving vertically up the side of an anthropomorph's torso. These sites are scattered throughout the tradition.

An unusual grouping of ungulates can be seen in *Figure 4.12*, showing one small part of the Great Gallery. Here, 11 or 12 small ungulates are shown in a roughly triangular cluster below two typical anthropomorphs. The ungulates are shown in active poses, with bent legs. Below the group is a dog-like figure. To the right of the ungulates are two more anthropomorphs, depicted naturalistically and shown in active poses; each is holding staff or spear. All of the figures in this grouping are painted in the same shade of red, and appear to be contemporaneous. All four anthropomorphic figures have white decorations in their bodies. All the motifs seen in the photo seem to be related.

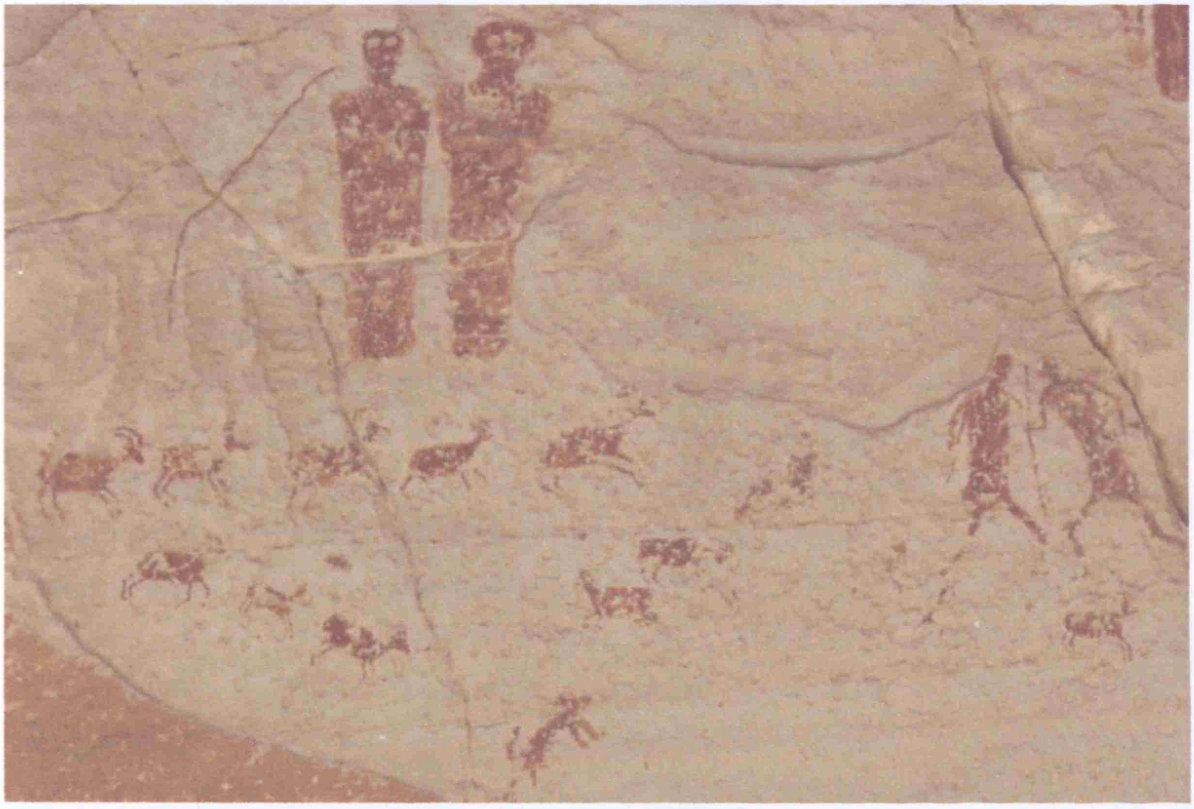

Figure 4.12 - This cluster of ungulates is accompanied by two typical anthropomorphs, as well as two active and naturalistic anthropomorphs, making for a very unusual grouping of images (site 617-1).

While the other sites with lines or series of ungulates show clear associations between the ungulates and one or more anthropomorphs, the relationship between the ungulates and the anthropomorphs in this group is not clear. The ungulates seem to be set apart from the rest of the figures. The two naturalistic anthropomorphs seem to be engaged with one another, while the other two hover alone above the rest of the figures. A literal interpretation of this group might suggest a hunting scene, but such an interpretation is incongruous with the rest of the BCS tradition. Then again, so is this group of images – these active anthropomorphs are an extremely uncommon sight.

Ungulates are creatures of the ground, and lack the liminal characteristics of birds or snakes. Furthermore, archaeological evidence tells us Archaic people hunted and ate them – not in great numbers, and perhaps only opportunistically, but it undoubtedly happened. But the ungulates shown on the head and shoulders of anthropomorphs are not real animals, nor are those depicted in lines and series – they are entirely too small. These creatures, then, in addition to being economic resources, had other significances as well. But because animals like bighorn sheep have no outstanding characteristics which might help us to guess the metaphorical connotations of these figures, we must turn to more closely examine the relationships between the ungulates and the anthropomorphs.

Those perched on heads and shoulders fall under the category of 'close association', which we saw with the bird motifs. The ungulates in lines and series might be better understood in terms of 'control', which was used to describe the snake figures. Perhaps what we are seeing here is something akin to the 'master of the animals' – the anthropomorphs which are associated with ungulates are beings which have a close relationship with the ungulates, and are able to control them, to 'herd' them into lines or groups so that they may be hunted. In this light, the images in *Figure 4.12* make more sense – the two abstracted anthropomorphs at the top might be influencing the ungulates below, such that the figures on the right, depicting 'normal' humans, might better hunt them. I am weary, however, of such literalist interpretations, but perhaps this group is in fact a scene in the Western sense.

All of the zoomorphic forms discussed so far are closely associated with whatever entities the anthropomorphs represent. There is a sort of communion between the anthropomorphs and the animals. Whether this communion is literal, in the case of a 'master of the animals' hypothesis, or metaphorical, in the case of birds connoting magical flight and snakes alluding to supernatural power, is still not clear.

Dogs, Rabbits and Other Zoomorphs

The remaining zoomorphic motifs which will be discussed are much less common. Dogs are represented at seven sites. There are two rabbits, and a handful of other rodent-like figures. A few possible insect motifs can be found scattered throughout the study area. The remaining zoomorphic forms are fantastical and are discussed later.

Figure 4.13 - Three examples of dogs in supplicant positions relative to an anthropomorph (sites 620-1, 616-4, and 403-4).

Eight dog motifs were documented at seven sites. Dog motifs are, for the most part, quite standardized. Their torsos are rectangular, and they often sport a tail which is curved over their back. Of the eight dog motifs, four are depicted supplicant to a single anthropomorph. Three of these are shown in *Figure 4.13*. The dog figure in the right-hand image actually does have a snout, ears, and four legs, but these were painted in a very light colour, which has since faded considerably. A vertical line crosses its torso; this is found in three of the dog motifs. The middle image is near the Great Gallery; these figures were 'painted' with mud. In the final picture, from an entirely pecked panel, a dotted line can be seen connecting the dog's tail to the shoulder of the anthropomorph.

Two dog motifs are depicted on a larger scale, and are not shown in any relationship to a single anthropomorph. These are shown in *Figure 4.14*. Both figures are over a metre in length. The first dog has a typical curved tail, enhanced with hairs, and has a vertical band of buff pigment in its torso. The second image is in a bad state of preservation, but an open mouth and tongue can be seen, as well as part of a similarly curved tail, a white band on the neck, and two spots in the torso. Both of these figures are located in and amongst anthropomorphic forms, but are seemingly unrelated to any of them.

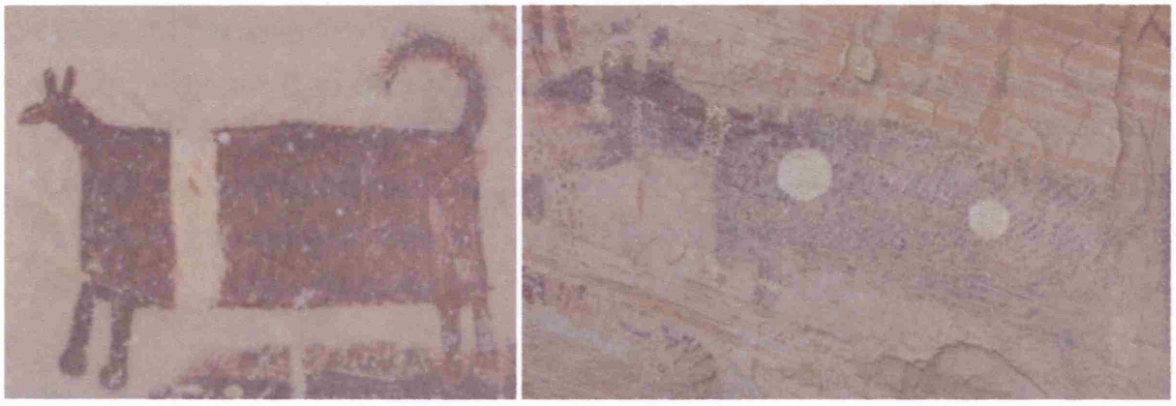

Figure 4.14 - The two large dog motifs from the tradition are each over a metre in length (sites 416-1 and 607-1).

Finally, a few very small dog motifs can be found in the rock art. One can just be made out in the bottom left of the centre image in *Figure 4.6*; the other accompanies a group of ungulates in *Figure 4.12*. Both are shown in more active poses than the larger dog motifs, and the second sports the typical curved tail.

There are four species from the family *Canidae* found in the study area – three types of fox (kit, red, and grey) and the coyote; which of these species are depicted in the rock art is unclear, as the dog motifs do not outwardly resemble any of them. A literalist interpretation of these motifs might suggest the dog figures represent tame animals, perhaps used to help with hunting. The supplicant position of many of the figures to a single anthropomorph could support such a hypothesis – the images in *Figure 4.13* look very much like depictions of a pet-owner relationship. However, there is neither skeletal nor coprolitic evidence in the archaeological record which points to any form of past

human interaction with any of these species. Moreover, the canines in the study area are weary of humans, and tend to run from us.

Perhaps the relationships depicted are conceptual rather than physical. A look at contact-period cultures in the American Southwest reveals that of all the animals found in the region, the coyote is most often humanized, and turned into a mythological character. It usually takes the form of a trickster, throwing wrenches into human affairs (see, for example, Kroeber 1901). Coyotes are extremely curious creatures, and will approach people, watching, until they feel they have been noticed, at which point they are quick to run away. Their howls are commonly heard around dusk, and are unmistakable. They are intelligent, charismatic animals, and if they are the species depicted in the rock art, any number of connotations could be present.

The fox a far less common sight. The one time I came across one of these creatures, it saw me before I saw it. Startled, the fox let out a sound that I mistook for a woman screaming which, because I was in the middle of nowhere, frightened me terribly. It was not until I used my binoculars to spot the source of the sound that my nerves settled. If the dog motifs in the rock art depict foxes, a very different set of associations would be attached than if they depict coyotes. Whichever species is shown, the close relationship between the dogs and certain anthropomorphic forms suggest they were held in high regard.

As we move down the list of the zoomorphs depicted in the rock art, it is becoming increasingly more difficult to theorize the significance of the figures. Snakes, birds, and ungulates are fairly common sights in the rock art. Their forms are standardized, and they occur in a fixed set of relationships with the anthropomorphic forms. Dogs, though few in number and scattered throughout the study area, are also quite consistent in their form. These motifs were probably not individual innovations, but rather symbols whose significance was understood by most Archaic people. The remaining zoomorphic motifs, however, are unique to specific sites, or occur in similar ways at two related locales. The

meanings attached to them were probably site-specific or regional, and were less accessible to the Archaic population as a whole.

For example, the two sites in which rabbits occur in the rock art are located 20 kilometres apart as the crow flies, but the distance takes at least two days to cover by foot because several canyons convolute one's path. The first site is a large gallery site, and is clearly the work of several artists working at different times. *Figure 4.15* shows one small piece of the panel. The zoomorph on the figure's hand is very probably a rabbit, judging by its form. Another zoomorph near the anthropomorph's shoulder is formally quite similar, but its ears are much smaller; it, too, might be a rabbit. Note the long ear-like appendages protruding upwards from the anthropomorph's head.

Figure 4.15 - This anthropomorph has a rabbit standing on its outstretched hand. The zoomorph near its shoulder is similar, but its ears are much smaller. It too might be a rabbit (site 614-2).

The second site which contains a rabbit-like motif is shown in the left-most image in *Figure 4.16*. This site is quite small, and the majority of the panel is stylistically consistent, and appears to have been produced by a single individual. Here, a rabbit is seen standing on the outstretched arm of an anthropomorphic figure; this anthropomorph also has ear-like appendages on its head. Now compare the form and colour of this anthropomorph's head with the two figures in the right-hand image – they are very

similar, down to the white caps on top of the figures' heads. The image on the right of *Figure 4.16* actually comes from the gallery site where the first rabbit motifs were noted.

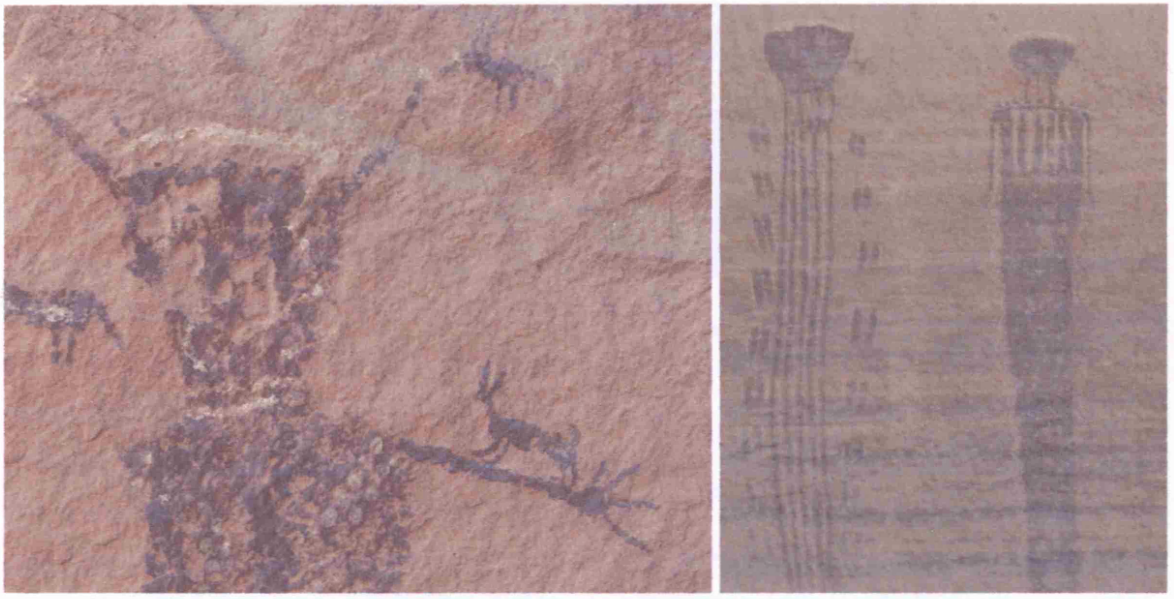

Figure 4.16 - The figure on the left bears a rabbit on its outstretched arm. The two figures on the right are visually quite similar to the first, but come from the site shown in *Figure 4.15* (sites 426-2 and 614-2).

While the two anthropomorphs with rabbits on their arms are quite dissimilar (apart from both having 'rabbit ears'), the connection between the anthropomorphs shown in *Figure 4.16* is striking. These images are quite possibly of the same hand, as this style of painting is not found at any other sites. Because the white pigment of the images in *Figure 4.16* suggests they are fairly recent (Manning 1981), and the dark purple colour of the image in *Figure 4.15* suggests the iron in the pigment has been oxidizing for a considerable time (Tipps 1995), I believe that the person who produced the two anthropomorphs shown in the right-hand image above saw the image in *Figure 4.15*, which is at the same site, and then later went to reproduce the 'rabbit on arm' theme at the second site. If this is the case, however, the significance of the two rabbit motifs do not necessarily coincide. The first, earlier figure was an individual innovation, with a local meaning specific to the site. The theme was then copied, maybe even hundreds of years later. Because these are the only two sites where rabbits are depicted, and because the connections between the two sites are strong, I believe this is an instance of internal

influence, of one artist being struck by the work of another, rather than being a common theme with a fixed and well-known meaning.

Figure 4.17 - A centipede motif (site 403-3).

A similar situation might have occurred in the case of centipede motifs (Figure 4.17). I know of three such motifs in this rock art tradition, each very similar to the next, but each is at a different and unrelated site. Centipedes, however, can be found throughout the study area, and it is more likely that different individuals will decide to paint a centipede independently of one another than the possibility of two separate individuals independently choosing to paint a rabbit on an anthropomorph's arm. The centipedes, like the rabbits, probably have site-specific meanings.

Fantastical Zoomorphs

The remaining zoomorphic forms are either convolutions of real animals, or do not resemble any real animals found in the study area. *Figure 4.18* shows two very similar dog-like zoomorphs. Each form is very attenuated, rendering them quite non-naturalistic. Interestingly, these two figures come from the same two sites where the rabbit motifs occur; in fact, the bottom figure is directly to the left of the anthropomorph holding a rabbit in *Figure 4.16* (indeed, its tail can be seen). The artist who copied the 'rabbit on arm' motif seems to have reproduced the 'attenuated dog' motif as well. There are no further similarities between these two sites.

Figure 4.18 - Two attenuated dog-like motifs (sites 614-2 and 426-2).

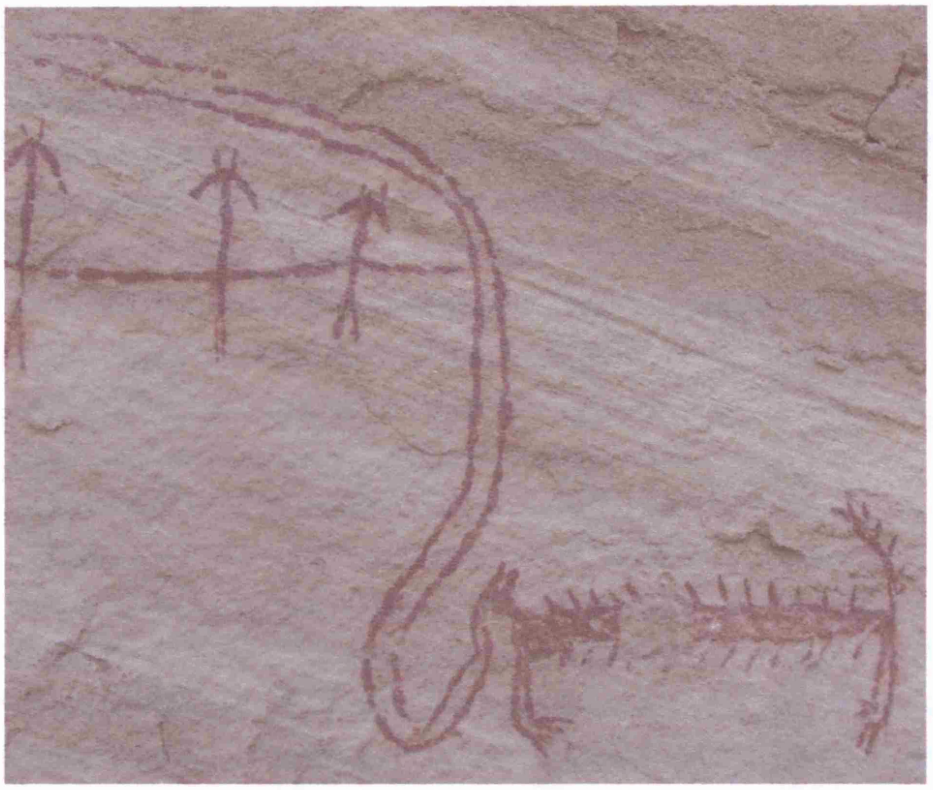

Figure 4.19 - Another elongated dog-like motif, less naturalistic than the previous two (site 607-1).

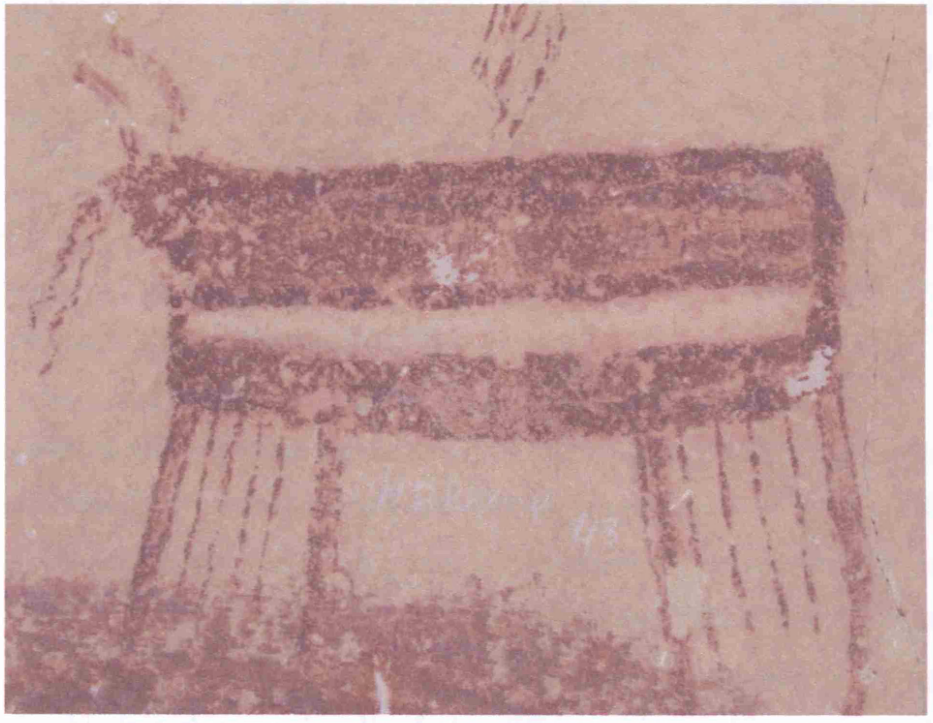

Figure 4.20 - This large figure seems to be a an animal of some sort, but does not resemble an actual physical creature. It is the only motif of its kind in this rock art tradition (site 416-1).

A similar fantastical zoomorph is seen in *Figure 4.19*. This figure is decidedly dog-like, and its torso is again attenuated. Its feet, too, are non-naturalistic, resembling hooves or perhaps talons. The hairs sticking up from its torso and tail are unusual features of the image.

Figure 4.20 shows another unusual creature. While the elongated dog-like forms just shown are based upon real animals, the creature in this image seems to be largely a product of the artist's imagination. It vaguely resembles a large ungulate, complete with a set of horns or antlers, but its 'legs' and 'snout' are quite unnatural. This is a unique motif; its significance is unclear.

Apart from the last few fantastical motifs shown, all of the animals depicted in the rock art can be seen today in the study area. They represent a very small percentage of the many animals which make the desert their home. Lizards, for example, are extremely common throughout the area, but are never shown in the rock art. Rabbits are also a common sight, and were eaten frequently, but appear only twice in the whole tradition. Mountain lions are also present in the study area, but are absent from the art (though perhaps the image in *Figure 4.19* is a mountain lion). Instead, Archaic artists focused on primarily on three kinds of animal: snakes, ungulates, and birds. Interestingly, during my fieldwork, I saw innumerable birds, but only three or four ungulates, and just two snakes. The occurrence of animals in the art therefore seems to have little to do with the size of their populations, or with their use as natural resources; instead, their connotative significations seem to have been highlighted.

While the relationships between these zoomorphic forms and the anthropomorphs have been noted, interrelationships between the animal forms have not yet been discussed. They appear in the rock art in every possible combination – snakes with birds, snakes with ungulates, birds with ungulates, and all three together. These combinations can be seen in whole panels, as well as in relation to single anthropomorphs. More significant, however, is the fact that nearly all of the polymorphic motifs in the tradition are combinations of these three kinds of animal, sometimes combined with human

characteristics as well. Polymorphs emphasize the significance of this triad, as well as the interrelationships between the three categories.

Polymorphs

Fourteen polymorphs were documented at eight sites. Polymorphic motifs are composite forms, which bring together physical characteristics of two or more creatures into a single image. Most often, the polymorphs are based on an anthropomorphic body plan, with elements of one or more animals added to it. Several polymorphs, however, are snake-based, and some of these forms lack human attributes entirely. Some polymorphic motifs are regional phenomena; others are one-off images found only once across the whole tradition. Birds, snakes, and ungulates are the animals most often used to build polymorphs, and some motifs combines attributes of all three.

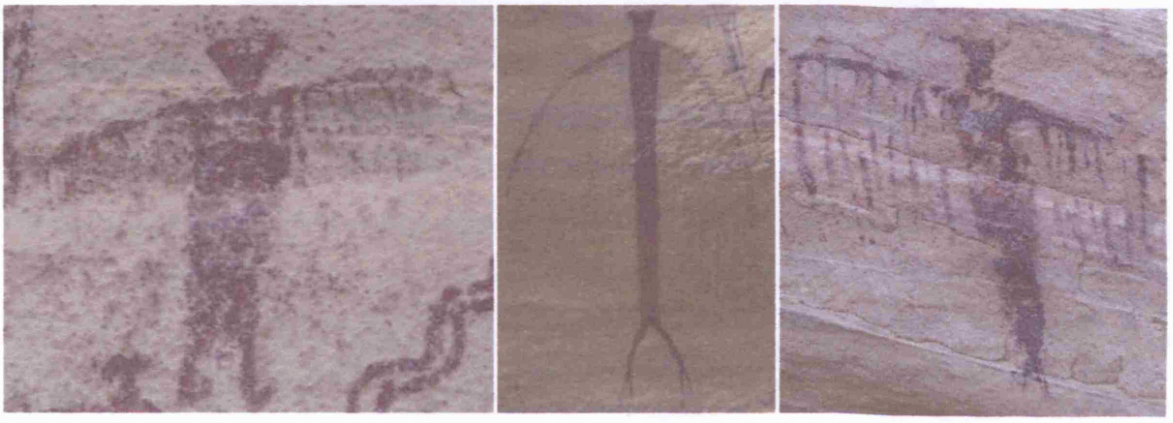

Figure 4.21 - Three winged anthropomorphs from three separate but nearby sites (sites 413-2, 413-1, and 607-1).

The most common polymorphic figure is the winged anthropomorph. These motifs are more or less anthropomorphic in their overall form, but have outstretched wings in place of arms. Of the seven winged anthropomorphs recorded, four occur in a cluster of three sites around Buckhorn Wash, all within about 15 kilometres of one another; the remaining three are found at other, unrelated sites. The Buckhorn area figures, some of which are shown in *Figure 4.21*, are all quite similar. They each have roughly triangular heads, and their wings consist of long, arm-like appendages with multiple vertical lines coming down off of them (the lines in the middle figure are very fine, and did not

photograph well). While the image on the left has human-like feet, the middle figure's legs bifurcate into two lines, and are somewhat talon-like. The rightmost figure sports two very short legs.

Figure 4.22 – A winged anthropomorph from Horseshoe Canyon (site 616-1).

Of the remaining winged anthropomorphs, one resembles the first three in form (Figure 4.22) but is found in Horseshoe Canyon, some 80 kilometres to the south-east. The figure sports the same inverted-triangular head, and its wings are drawn in the same fashion as those figures from the Buckhorn Wash area. The panel where this figure is found, however, bears no other resemblances to the Buckhorn panels.

The last two winged anthropomorphs are seen in *Figure 4.23*. These figures are found at two very different sites, 130 kilometres apart. Both polymorphs are small, and are held in the right hand of a larger figure. Their forms are similar – each has an elongated, beak-like head pointing to the left, straight parallel legs, and feathered, wing-like arms. Interestingly, the larger figures which hold these small polymorphs also show animal characteristics. The figure on the left has a blue-green snake in its mouth, and the figure on the right is one of the most interesting polymorphs in the whole tradition, combining elements of snake, bird, and ungulate within a basic human form.

Figure 4.23 - These two larger figures each hold a small, winged anthropomorph in their right hand (sites 403-5 and 411-1).

The larger winged anthropomorphs are probably conceptually related to, but at the same time separate from, the two smaller ones. The addition of wings to a basic anthropomorphic figure gives it the most salient characteristic of a bird – its ability to fly. Winged anthropomorphs are common shamanic symbols, often connoting magical flight. These winged, human-like forms present this idea very explicitly. The two smaller figures, however, are more bird-like, and resemble animals more than they do humans. They might be better described as anthropomorphized birds than winged anthropomorphs. Their position in relation to the larger figures is one of possession or control, while the larger winged anthropomorphs are depicted among other, non-polymorphic figures. Finally, the fact that the small anthropomorphized birds are held by figures which also possess animal characteristics suggests that these motif clusters are visual means of depicting a relationship between the anthropomorphs and various animals or animal qualities.

The rightmost image in *Figure 4.23* presents this idea very well. The main motif here is a polymorph consisting of a human body with the head and tongue of a snake, but bearing

the curved-back horns of a sheep. Its feet resemble those of a bird, and a tail flows from the figure's body. One hand holds a snake and a small sheep; the other, an anthropomorphized bird. The entity depicted here bears characteristics of three different kinds of animals, and holds one of each in its hands. An overall view of this panel can be seen in *Figure 4.11* above; this polymorph is the central motif in the panel with three long lines of tiny ungulates.

Figure 4.24 - This site has three polymorphs together in one panel (site 417-1).

Figure 4.24 shows one of three sites with snake-based polymorphs. The leftmost polymorph (1) bears the body and head of a snake, but has short arms which reach toward the anthropomorph to its left. The next creature (2) is quite bird-like, but its body transforms into a meandering, snake-like line, finally terminating with two legs bearing small feet at the bottom. The final polymorphic form (3) is a horned serpent with a pair of outstretched, three-fingered hands.

While these more complex polymorphs are difficult to discuss out of context, at this point it can be said that they represent a blurring of the distinction between humans and

animals. Birds, snakes, and ungulates are again brought to the forefront, and their significance to the BCS tradition is further highlighted. These complex polymorphs stand in great contrast to the static and stylized anthropomorphs. Their poses are active, perhaps even representing transmogrification in action. They highlight the mutability of all of the categories established in this chapter, and may have served as metaphors for the powers that permeate between the three cosmological zones, between animals and humans, between spirits and people.

Anthropomorphs

The discussion now moves to the anthropomorphic motifs, which dominate the rock art spatially and visually. Anthropomorphs are present at all but one site (the main component at which is a polymorph), and comprise a full 50% of all motifs recorded. While the anthropomorphs vary greatly in design from site to site, there are a few tenants adhered to across the whole tradition. The figures are highly abstracted and stylized. They are almost exclusively depicted face-on rather than in profile, and generally exhibit bilateral symmetry. They are typically static, lacking any signs of movement or activity; when otherwise, action is usually limited to 'holding something'. Emphasis is placed on the body and head of the figure – in most cases, only these are depicted. Limbs are sometimes added, and one-armed figures are frequent. Finally, the anthropomorphs lack any obvious signs of gender or age distinction. The forms are, for the most part, anonymous.

It is tempting to establish categories in an attempt to isolate regional variants, but previous attempts have proved to be of little use. Sucec (1994), hoping to begin formulating a tentative chronological sequence of the style's anthropomorphs, established nine variants based primarily on form and colour. His nine corresponding distribution maps, however, are almost indistinguishable, demonstrating only that the categories he developed, with regional names like "Canyonlands Variant" and "Northern Variant", can in fact be found across the entire study area. Cole (2004) recently published a similar analysis, describing seven regional variants. Her data set, like mine, is comprised of information from approximately 60 sites, though she has considerably more information

from sites in the north-eastern portion of the study area. My findings, however, clash significantly with hers, and suggest that regional dialects revealed in both our studies may be related to our samples. That said, however, the present study suggests certain stylistic elements and representational modes are in fact limited to specific regions. Trends are therefore mentioned, but no solid categories are established.

This discussion explores the form and colouration of bodies and heads, the presence and form of bodily appendages (arms, legs, etc.) and head appendages (ears, horns, antennae, etc.) as well as the sorts of interior decorations utilized. When appropriate, region-specific forms are discussed.

Torsos

In terms of form, the anthropomorph in *Figure 4.25* is quite standard. Its torso is boxy, exhibiting straight, parallel sides and squared shoulders. The bottom of the torso is painted such that it seemingly fades into the rock. While this particular anthropomorph has a horizontal band across its torso, most forms like this are solidly painted in a single shade of red. These simple, solid forms are usually considered to be the normative mode of representing anthropomorphs in the BCS tradition. They are, however, mostly limited to the southern portion of the study area. In the literature, they are described as "ghosts", "mummies", and "wrapped bodies" (*eg* Cole 1990). They tend to be large, usually one and a half to two metres in height, and often occur in groups.

This particular motif comes from the Maze District, where most anthropomorphs are variations of this basic form. Shoulders can be squared, bulbous, or more rounded. The sides of the torso tend to be straight – sometimes parallel but sometimes tapering toward the bottom of the figure. The base of the torso may either fade into the rock as this figure does, or form a round, solid bottom. Maze figures tend to occur in groups. Several sites in the Maze consist of groups of simple, solid red anthropomorphs shown side-by-side. At other sites, however, the figures are very complex and exhibit detailed body and head decorations.

Figure 4.25 - This anthropomorph represents the most basic body plan used in this style (site 423-2).

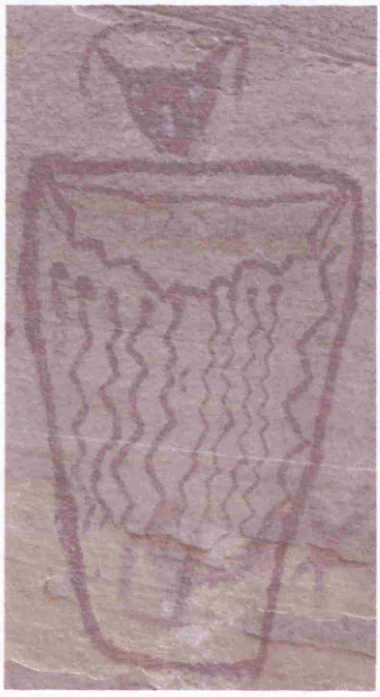

Figure 4.26 - This anthropomorph's shield-shaped torso is typical of the Needles region (site 501-3).

Moving east to the Needles area, body plans tend to change. The figures become smaller, usually less than two metres tall. Torsos tend to be broader at the shoulders, shorter in length, and quite tapered; this results in a shield-like form. *Figure 4.26* shows an example.

Figure 4.27 - These two anthropomorphs have attenuated, rectangular bodies (sites 614-2 and 426-2).

These are, of course, trends rather than rules. Many anthropomorphs in both the Maze and the Needles do not conform to these modes of representation. For example, the Harvest Scene, one of the major Maze sites, is dominated by tall, very attenuated figures with parallel sides and squared shoulders; another, possibly related site further north has similar, but smaller figures (Figure 4.27).

Figure 4.28 - Two examples of the triangular torso form common in the northern portion of the study area (sites 605-1 and 413-1).

Sites in the northern half of the study area are also dominated by a particular torso form. Many figures exhibit narrow shoulders, and bodies with concave sides that taper gradually inward to a point at the bottom of the figure, resulting in a very triangular body. *Figure 4.28* shows two examples of this body plan. At two northerly sites, the same triangular plan is varied by severely attenuating the torsos, and decreasing the width of

the shoulders, as seen in *Figure 4.29* below. Other variations have straight rather than concave sides and are frequently much shorter, resulting in a more regular triangular torso.

Figure 4.29 - Attenuated variants of the northern style (site 413-1).

As one moves north through the study area, there is a general trend which sees the anthropomorphs decrease in overall size, while at the same time becoming less naturalistic. The mummy-like forms of the Maze area recall the form and solidity of a body much more than the unnaturally-proportioned and often attenuated forms more common in the north.

Further variations in body plan can be seen in *Figure 4.30*. On the top are three 'rake' figures, with torsos composed vertical lines, which recall the winged anthropomorphs discussed previously. The images in the bottom of *Figure 4.30* represent some of the most unusual torso forms in the tradition. On the right is a figure with a triangular torso, topped with a pair of antennae. The headless lanceolate form on the right only vaguely recalls the shape of a body.

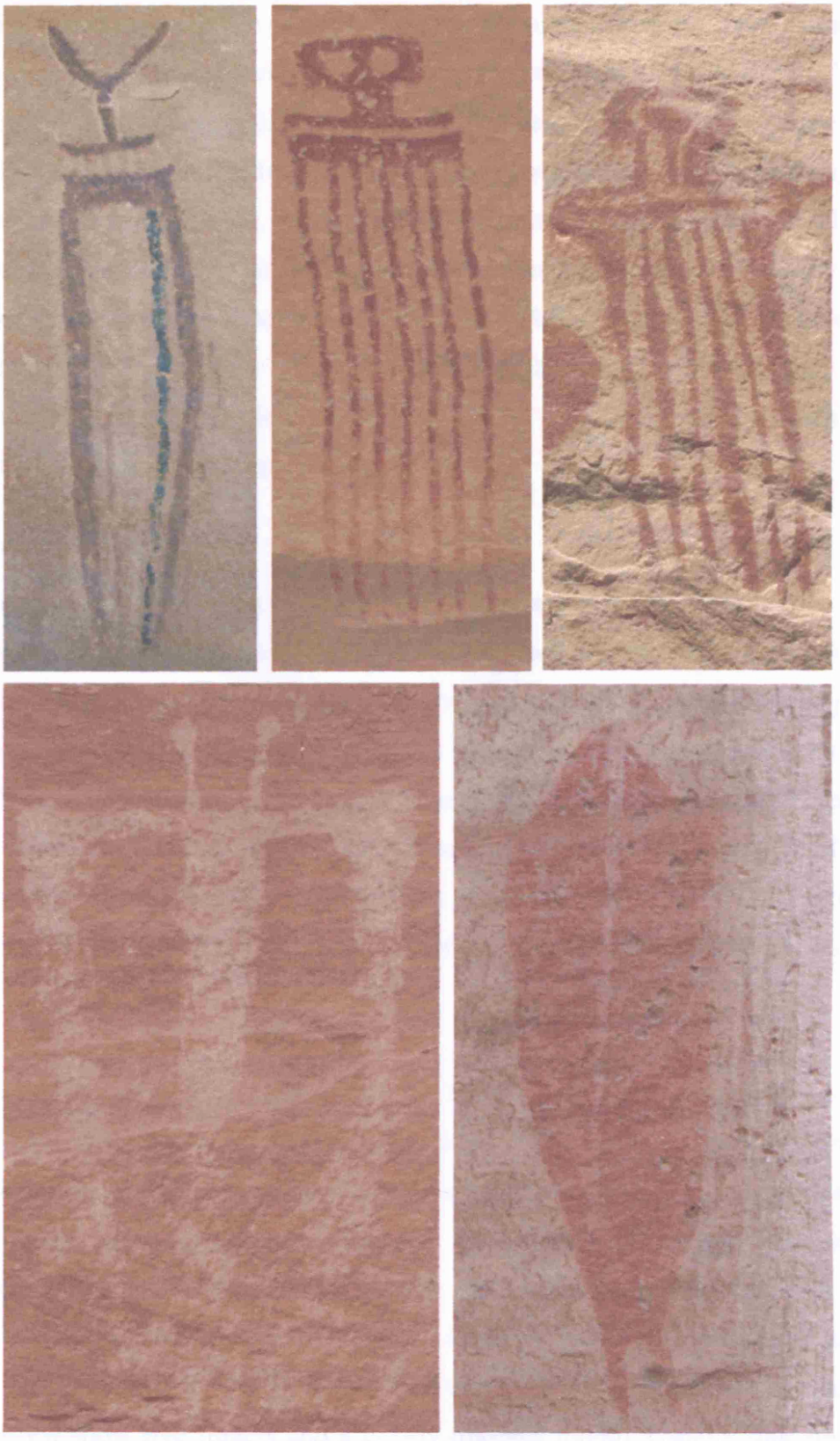

Figure 4.30 - Examples of some of the more unusual torso shapes found in the tradition (top: sites 405-2, 606-2, and 605-1; bottom: sites 501-2 and 406-2).

This brief introduction to the various body-types found across the study area should provide an impression of the variability in form seen throughout the tradition. This will be evidenced further through the case studies in the next chapter. Some of these figures, especially the large and solid forms from the Maze area, recall the form and physicality of the human body quite well, while some of the more abstracted figures require some sideways thinking to 'see' that they are indeed anthropomorphs. Interestingly, Cole's categories (2004) have no place for these forms, and Sucec (1994) mentions only the lanceolate motif from *Figure 4.30.* These highly abstract figures, however, are *not* uncommon. This fact, coupled with the evidence produced below, points to the possibility that these are not depictions of people.

Torso Appendages

Arms and legs are the most commonly depicted appendages. Twenty-four percent (n=140) of the anthropomorphs have arms, and legs are present on 23% (n=136) of all anthropomorphs. Ten anthropomorphs sport wavy, snake-like appendages in place of arms; these have already been discussed. The only other torso appendage depicted is a tail, and this is only seen on two figures. Most figures have two arms, but there are a number of one-armed figures present throughout the study area – 12% (n=17) of the 140 anthropomorphs with arms have a left arm but no right, and 8% (n=11) have a right arm but no left. There seems to have been no preference as to whether the right or left arm is missing.

Arms always come off of the anthropomorph's shoulders. They may hang down at the figure's sides, stick out sideways, or be upraised. Arms can be straight or bent at the elbow. Whatever position the arms take, when a figure has two, they are always depicted symmetrically. Arms are usually thin and fairly long, and their length is rarely proportionate to the size of the figure's body. They most often terminate with a hand, unless the figure is shown holding an object, in which case the arm tends to terminate with the item held, and no hand is shown. The vast majority of hands are not naturalistic, though a few show five fingers and a clearly opposed thumb. Usually four fingers are

depicted, but the number of fingers present on a single hand ranges anywhere from two to nine, and some figures have a different number of fingers on each hand.

Legs are slightly more frequent than arms. Legs and arms do not always occur together – half of the figures with legs have no arms at all. Legs are usually short and straight, often continuing the outside border of the figure's torso (see Figure 4.31), though a few figures have longer legs which are bent at the knees. Legs often terminate in simple feet, which usually both point in the same direction, though a few figures have feet pointing away from each other. T-shaped feet can be seen on a handful of anthropomorphs. Very few figures have toes. *Figure 4.31* shows one of two figures from the Buckhorn Wash site which both have extremely attenuated, wing-like digits.

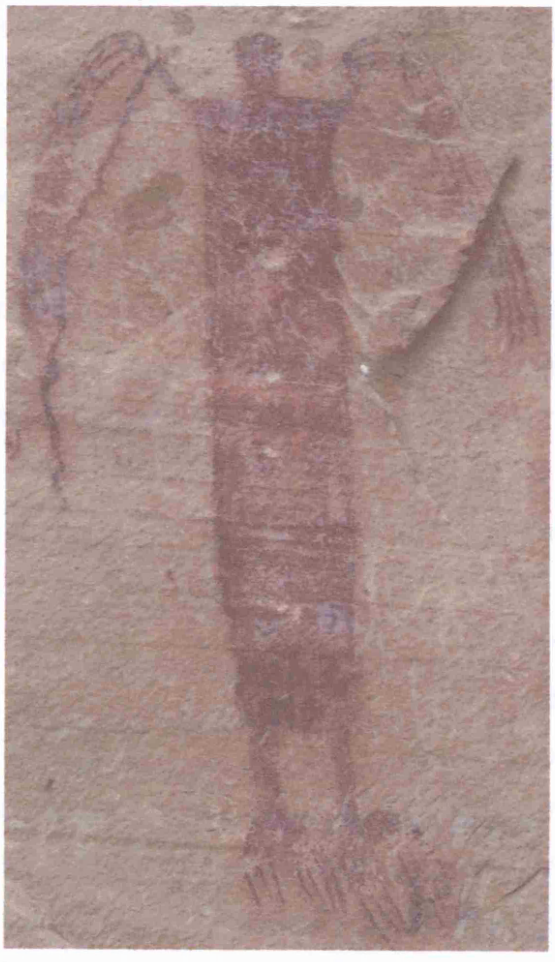

Figure 4.31 - This is one of two figures from the Buckhorn Wash Panel with extremely attenuated fingers and toes (site 413-2).

Interestingly, the large, 'mummy-like' anthropomorphs common in the Maze area and the smaller, 'shield-shaped' figures found in the Needles region are the figures least likely to have any torso appendages, even though these figures have the most naturally-proportioned torsos. Torso appendages therefore do not seem to be a means of rendering the anthropomorphic form more realistic. Arms and legs are most often depicted on anthropomorphs with narrow shoulders, and long, triangular or rectangular torsos. There are, of course, exceptions, making it difficult to do anything but point out general trends. In fact, a full 61% (n=358) of all anthropomorphs lack limbs entirely – they are comprised only of a head and torso, floating on the rock face.

Cole (1990) argues that the nature of arm and leg depictions on BCS anthropomorphs suggest the anthropomorphs represent human bodies wrapped in blankets or robes. She points out that arms are often shown extending upwards or outwards from the shoulders, and legs are often quite short in proportion to the torsos of the anthropomorphic figures, as though they protrude from beneath some covering. Further, those anthropomorphs lacking any limbs appear to be entirely wrapped. While Cole does not provide any suggestions as to why these figures might be wrapped, it is an interesting possibility. Perhaps the anthropomorphs in BCS rock art depict deceased individuals, who are represented in some kind of burial wraps. Unfortunately, I know of no archaeological evidence to support such burial practices among Archaic peoples.

Instead, I suggest the frequent lack of limbs among BCS anthropomorphs, and the diminutive form they take when they are depicted, is a technique used to place emphasis on the torsos of the figures. This emphasis on the bulk of the anthropomorphs' bodies has a corpothetic effect on viewers, asserting the bodily presence and strong corporeality of the anthropomorphs. While arms and legs seem to have been optional within the canon of BCS rock art, torsos and heads were important; in fact, these were all that seem to have been required to represent whatever beings these are, as is illustrated by the numerous torso-head compositions illustrated above. This suggestion is further supported by the fact that torsos and heads are sometimes embellished with decorations, but arms and legs are never decorated.

Torso Decoration

Most anthropomorphs in BCS rock art are monochromatic; however, 24% (n=139) sport some form of interior body decoration, which further emphasizes the figures' torsos. The means by which torso decoration is applied to an anthropomorph can take several forms, including:

a) The addition of details in a different colour of paint
b) Leaving specific areas of the anthropomorph's torso unpainted
c) Adding 'texture' to the figure's torso by painting it with one's fingers
d) Adding interior designs to a 'hollow' torso defined by an exterior outline
e) Pecking, scratching, or incising details into a figure after it has been painted
f) Pecking details into the rock prior to the addition of paint
g) Representing an anthropomorph's torso with lines or dots instead of solidly

Figure 4.32 shows a few examples of (a), and *Figure 4.33* shows one example of each of the remaining methods. None of these are mutually exclusive – many figures exhibit more than one of these techniques (Figure 4.34). The clearest regional variation in interior body decoration is the frequent use of white painted details added to a solid red anthropomorph in the south-western portion of the study area. Other techniques are also endemic to specific areas: (b) most often occurs in the northern half of the study area; (d) is mostly confined to a few sites in the Needles area; (f) is apparently restricted to a single site in the vicinity of the Maze. The remaining decorative techniques, most especially (c) and (e), are found throughout the study area.

The forms taken by torso decorations are various. Vertical lines, both straight and wavy, are very common; horizontal line decoration also occurs but is less frequent. Lines of dots, like in *Figure 4.32*, are often seen when decoration is painted. Geometric patterning, as seen in *Figure 4.33*(f), is not encountered very frequently. Finger-painting usually results in long, vertical striations. The herring-bone or broken chevron patterning found in *Figure 4.33*(b), reminiscent of ribs, and can be found at several sites. *Figure 4.34* shows an anthropomorph exhibiting more than one type of torso decoration.

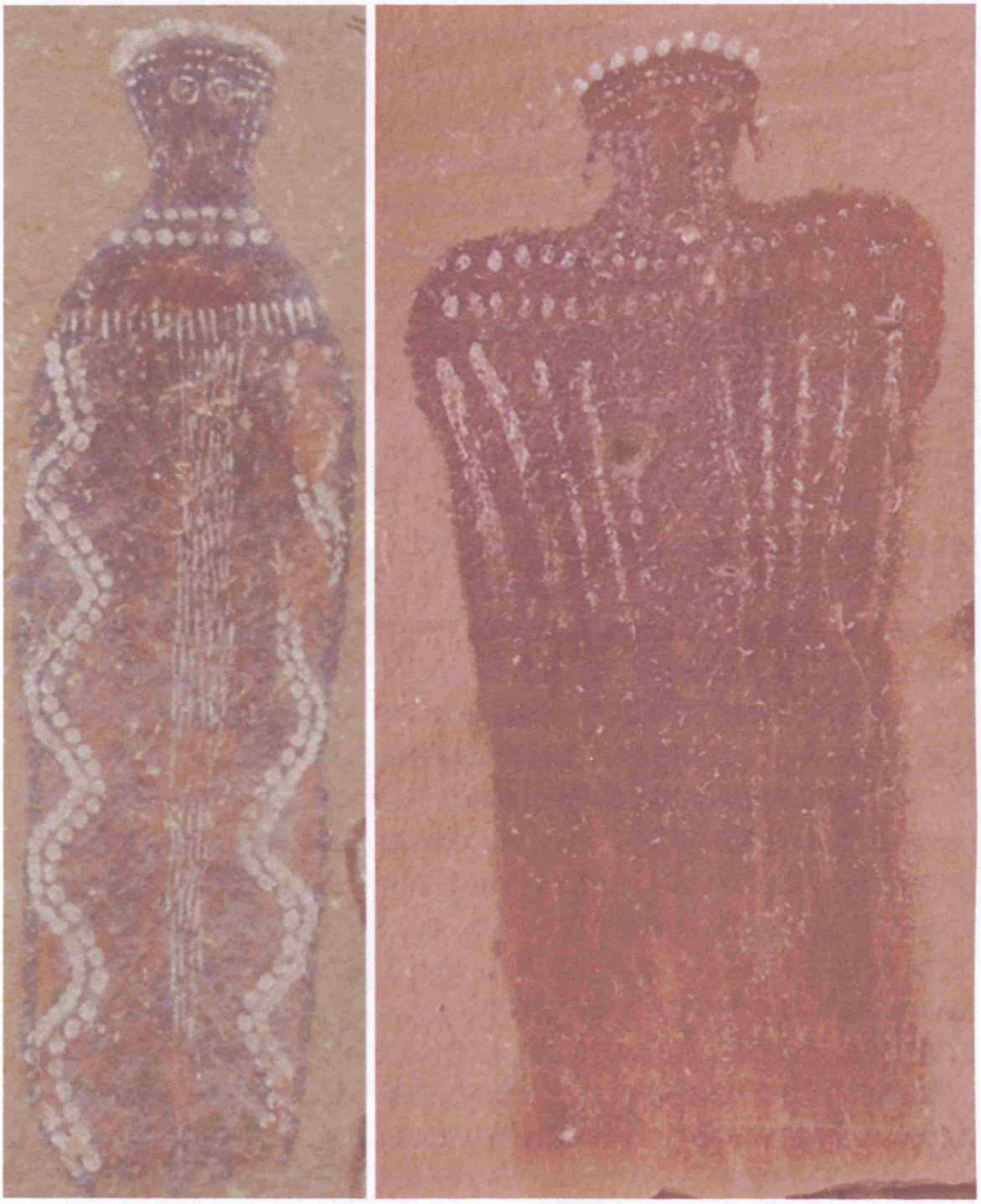

Figure 4.32 - Two examples of anthropomorphs with torsos decorated by the addition of details in white paint. Both are from the south-western portion of the study area (sites 621-1 and 620-1).

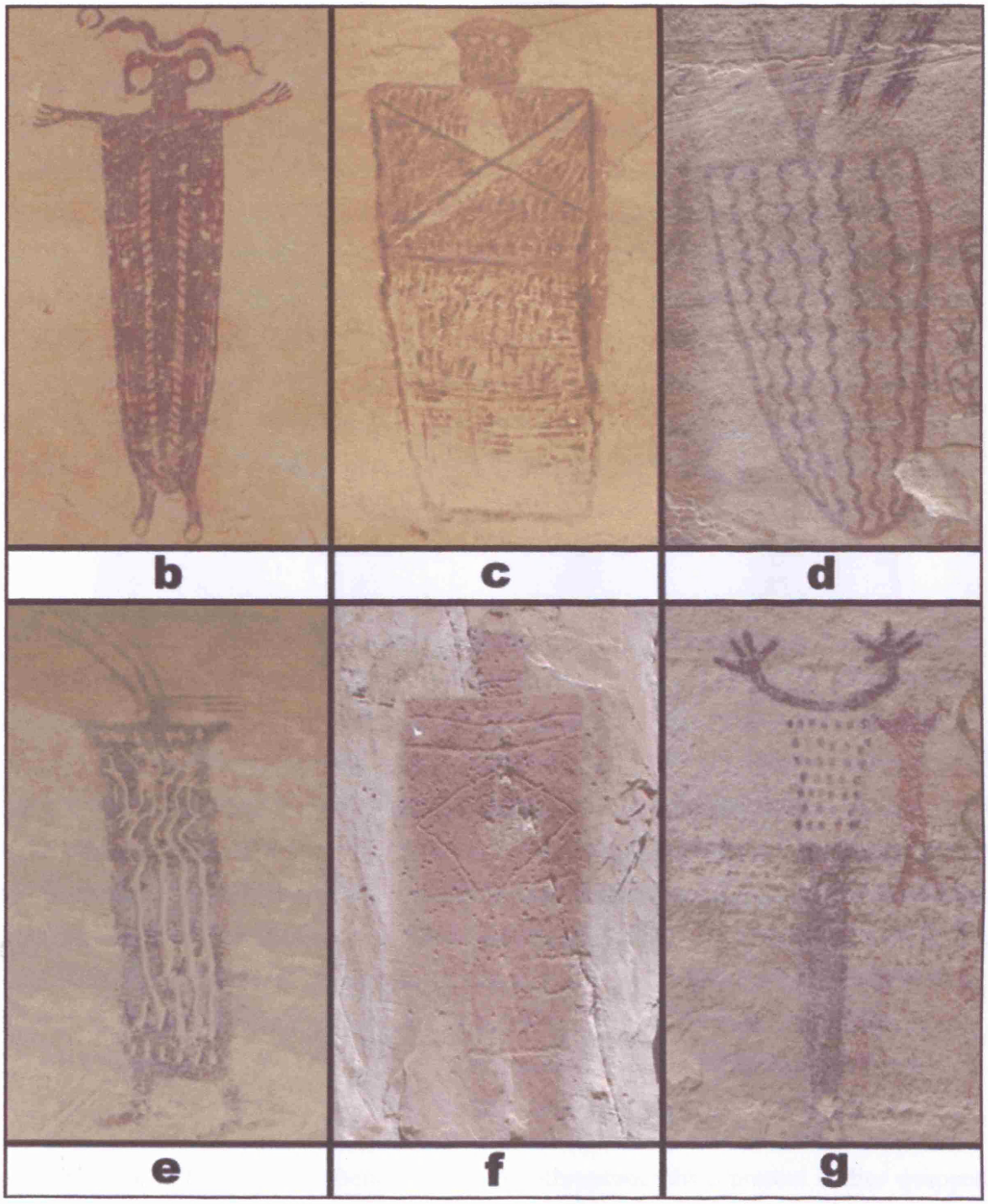

Figure 4.33 - Six styles of torso decoration: (b) part of this figure's torso was left unpainted; (c) the patterning this anthropomorph's torso was produced by applying paint with fingers; (d) this figure's torso is defined by an outline, and decoration was painted inside that outline; (e) the wavy vertical lines in this motif were incised into the rock after the paint was applied; (f) prior to painting this anthropomorph, details were pecked into the rock; (g) part of this figure's torso consists of dots, producing a unique effect (top: sites 414-1, 617-1, and 501-3; bottom: sites 420-2, 423-2, and 413-2).

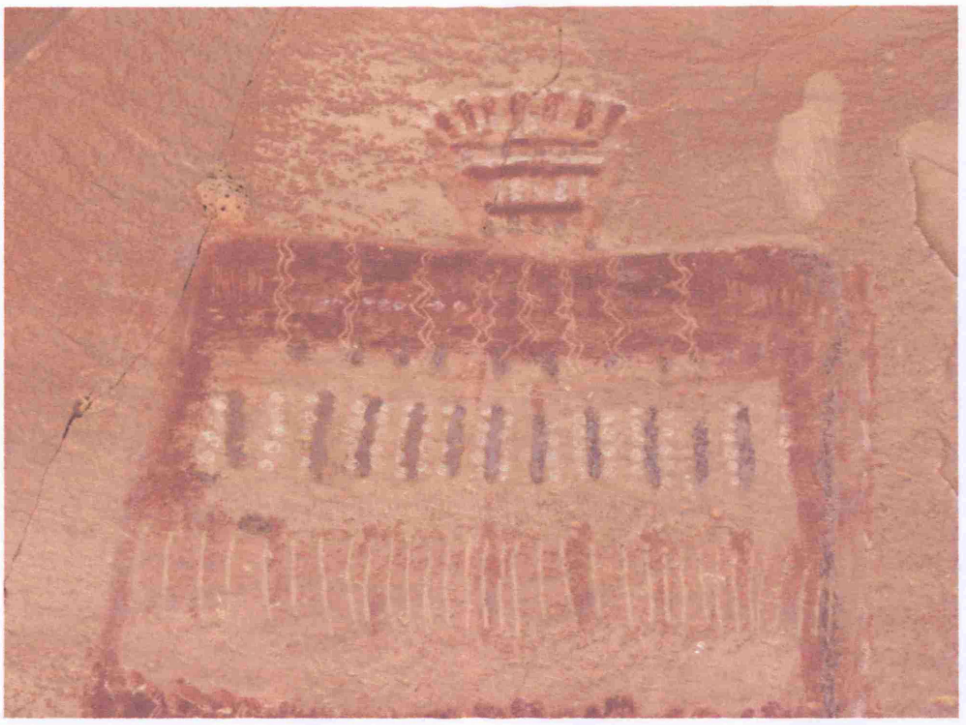

Figure 4.34 - This anthropomorph exhibits several types of torso decoration in the same image. From the Great Gallery (site 617-1).

Torso decoration is, on occasion, more suggestive. Two unique figures from the Great Gallery, shown in *Figure 4.35*, have representational decorations in their torsos – one with small anthropomorphs, the other with small ungulates. Close inspection of the original figures suggests these are not just superimposed motifs – which are rare in BCS rock art – but instead are part of the larger anthropomorphs, and were painted at the same time. The left-hand figure has additional anthropomorphic forms on its shoulders. I have seen photographs of this sort of representational decoration occurring in the Needles District as well, but have not visited those sites.

Cole (1990), in line with her belief that BCS anthropomorphs represent bodies wrapped in blankets, suggests body patterning might reflect the patterns found in the blankets. She also hypothesizes tattoos, body paint, or just clothing to be the purveyors of these patterns. Unfortunately, no other decorated artefacts remain from Archaic times; if other things were decorated, they must have been perishable.

Figure 4.35 - These two anthropomorphs from the great gallery have small figures inside their torsos (both from site 617-1).

Heads

Heads are present on 95% (n=550) of anthropomorphs. They take as many forms as torsos, but there is much less regional regularity apparent. A look at *Figure 4.33*, or any other images presented thus far, serves to illustrate the wide variety of shapes used to represent heads. They can be bulbous and round, flat and rectangular, triangular, trapezoidal, or even a simple vertical line. Heads may be represented with our without a neck. What is most interesting about the anthropomorphs' heads is the variety of embellishments added to them. Heads are decorated, sometimes contain eyes, and are often topped with appendages.

Head decoration is less common than torso decoration. The addition of decorative elements to the heads of anthropomorphs is restricted primarily to the south-western portion of the study area, especially the Maze region. Decoration takes the form of white painted dots and lines added to the figures' faces. Additionally, white hair or crowns composed of dots is a common theme in and around the Maze (see Figure 4.32). Figures from the Great Gallery (Figures 4.34 and 4.35) often exhibit complex head decoration.

More common than head decoration is the addition of eyes. These are the only facial features represented on BCS anthropomorphs, with the exception of one figure which has a mouth (Figure 4.23). Eyes are found on 13% (n=77) of all anthropomorphs. They are usually circles within the head that have been left unpainted, though occasionally eyes are painted onto solid heads. Pupils are present in several cases. In one category of image, represented by 20 anthropomorphs across the study area, eyes are disproportionately large, filling the entire head. The form and size of the head on these figures is defined by the large eyes, an effect which places great emphasis on these features (Figure 4.36).

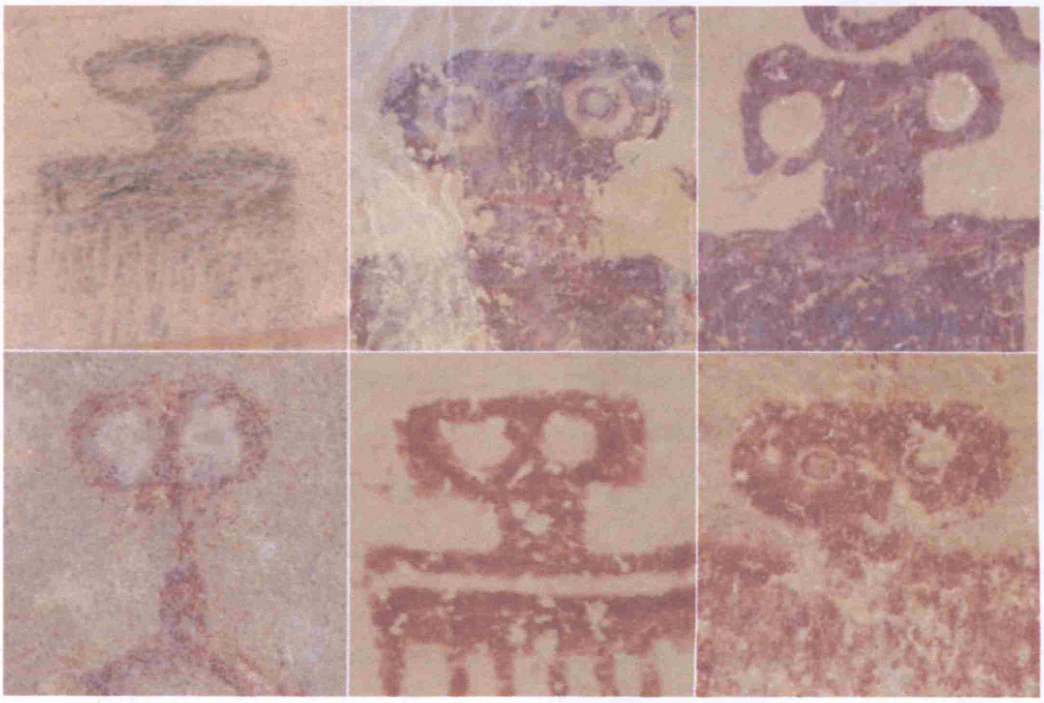

Figure 4.36 - The size and shape of these anthropomorphs' heads are defined by the large eyes. These six figures are scattered across the study area (top: sites 406-2, 414-1, and 414-1; bottom: sites 411-4, 606-2, and 606-1).

The presence of eyes depicted on some anthropomorphs implies sight. The fact that eyes are the only facial feature depicted is significant, especially when the eyes dominate the figure's head; even when they do not, eyes are usually disproportionately large (Figure 4.37).

Figure 4.37 - These limbless anthropomorphs have large, prominent eyes, formed by leaving part of the rock face unpainted (site 411-4).

Figures with eyes reciprocate the visitor's gaze, but also continue to look out from the rock in the absence of any human presence. Interestingly, two thirds of the anthropomorphs with eyes lack arms and legs – they are static figures, comprised of just a torso and a body. The only sign of action among these limbless figures is the fact that they are always watching over the land; and, when people stand before them, these figures both see and are seen.

The final form of head embellishment takes the form of various appendages, which can be seen on 26% (n=154) of all anthropomorphs. *Figure 4.38* shows some forms these appendages take. Sometimes these may be categorized, and described as antlers, horns, hair, ears, or antennae; other times, they are less easily named. "Antenna" forms,

comprised of straight lines emerging upwards and outwards from either side of an anthropomorph's head, are present on half of all anthropomorphs exhibiting head appendages. Often, these are doubled, such that two sets of lines are depicted. Antennae are usually short, though some anthropomorphs have quite long antennae (Figure 4.39). Ear-like appendages can be pendulous, hanging down from either side of an anthropomorph's head (Figures 4.37 and 4.38), or they may stick up from the figure's head, much like the ears of a cat (Figure 4.26).

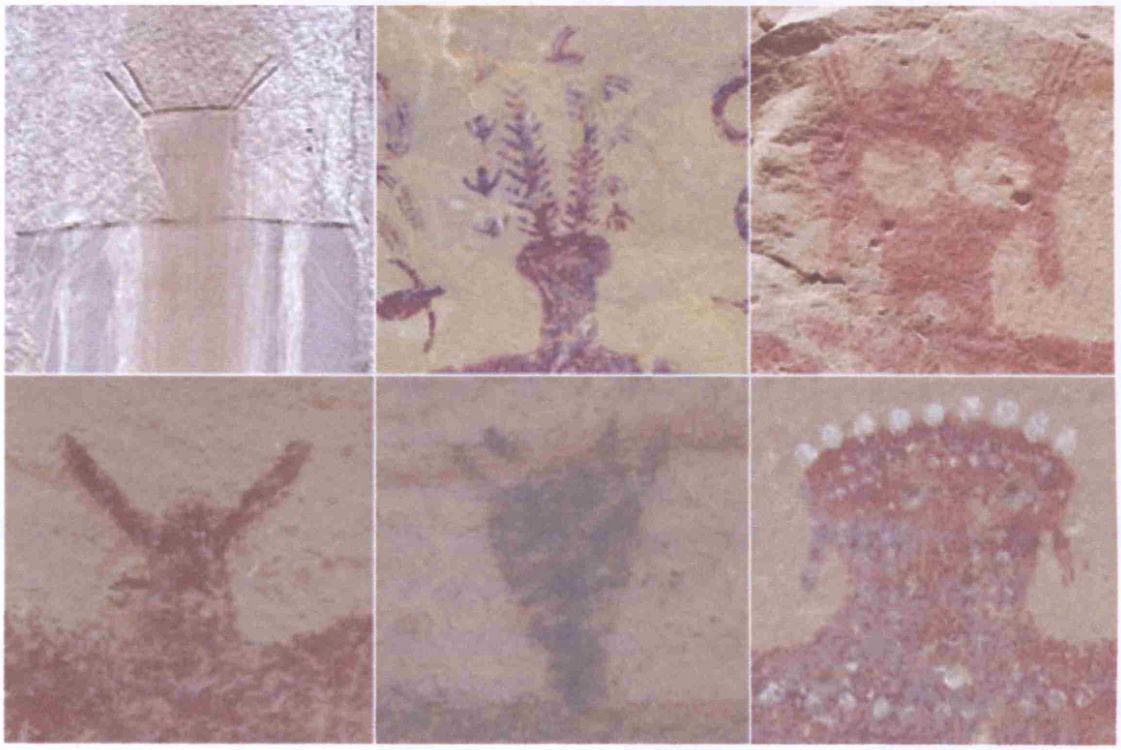

Figure 4.38 - These six figures from across the study area demonstrate the variety of head appendages (top: sites 612-1, 414-1, and 605-1; bottom: sites 502-1, 406-1, and 620-1).

No regional variation exists for these appendages, they are common throughout the study area; in fact, 57% (n=36) of all sites documented for this study contain at least one anthropomorph exhibiting some sort of head appendage. It has been suggested (Cole 1990) that some of these appendages are representative of headdresses. This is an interesting possibility, though I find it hard to see a resemblance. Many appendages, especially horns, pointed ears, and antlers, have an animal quality, and antennae, especially longer ones, have an insect-like quality (Figure 4.39).

Figure 4.39 - This anthropomorph has antennae coming from its head which are half as long as its body (site 614-1).

The addition of animal parts (ears, horns, antlers, etc.) to anthropomorphs forms a connotative link between the beings depicted and various animal qualities. These head appendages were probably more metaphorical than literal representations.

Action

The majority of the anthropomorphs in BCS rock art are static. They float on the rock face, and show no sign of action. When otherwise, signs of action are limited to the act of 'holding something'; this occurs in 8% (n=51) of all anthropomorphs. Items held include snakes (n=15), plants (n=10), sticks (n=20), and other, unidentifiable objects (n=6). Items may be held in the anthropomorph's right hand (n=20), left hand (n=28), or by both hands (n=3). The type of item held does not correspond to which hand holds it. Interestingly, 64% of all anthropomorphs with only one arm hold something in that arm;

this appears to explain many of the one-armed figures in this tradition. Several examples of anthropomorphs holding snakes were shown earlier in this chapter. The anthropomorph in *Figure 4.39* holds a plant-like form in each arm. *Figure 4.40* shows part of a panel in which several anthropomorphs are holding sticks; these are some of the most active anthropomorphs in the tradition.

Figure 4.40 - Several anthropomorphs in this panel are holding stick-like objects (site 413-1).

Figure 4.41 - These two pairs of anthropomorphs are depicted from the side, and take dynamic postures (sites 417-1 and 617-1).

There are a small number of anthropomorphs which depart from the static, frontal form; these figures are small, are shown from the side, and appear in dynamic postures. There are a total of nine of these figures, and they come from two sites – the Alcove Site and the Great Gallery. Some are shown in *Figure 4.41*. Those from the Alcove Site are part of a small procession of similar figures, which all appear to be walking to the left. Those from the Great Gallery appear to be depicted in some sort of social exchange; note that each holds a long stick. These figures are more naturalistic in proportion and posture than the larger, more common figures. If any anthropomorphs in the BCS tradition represent humans, it is these.

Summary

The BCS rock art tradition is decidedly anthropomorphic. Human-like forms make up the majority of the motifs in all the sites recorded for this study. I have suggested that these anthropomorphs are not just representations of beings, but are entities in themselves, which had roles to play in the social and ritual lives of Archaic peoples. These rock art sites were visited by people wishing to establish, maintain, or contest relationships with these beings. It has not been suggested, however, who or what these anthropomorphs might be.

BCS anthropomorphs are defined primarily by a torso and a head; other embellishments are present, but the majority of the anthropomorphic figures exhibit only this torso-head combination. Decorative elements often emphasize the torsos, and in many figures, large vacant eyes draw attention to the heads. Some anthropomorphs are severely attenuated, or sport torsos comprised of vertical lines, or even just dots. Just enough is painted, in most cases, to suggest a human-like form or bodily presence, without actually painting a human.

Antennae and other head appendages are common. These may be representative of headdresses or the like, but are more probably metaphorical, perhaps symbols of authority or power, or they may be connotative elements associating the beings with animal qualities. The anthropomorphs are largely static, and the lack of limbs in most

figures, along with the static position of arms and legs when present, communicate immobility. Legs, when present, occasionally suggest the figure is standing on flat ground (Figure 4.33e for example), but usually hang down or even drift to the side (Figures 4.27 and 4.33b), as though the anthropomorph were floating or flying. Additionally, the torsos of many legless anthropomorphs simply fade away at the bottom (Figures 4.35, 4.37), as though they are emerging from the rock.

The anthropomorphs certainly recall the human form, but these elements point to a non-human status. Other clues suggest this as well. The location of many sites in hidden or difficult to reach places demands effort be put forth by visitors wishing to reach the sites; such trials seem to imply that importance was placed on moving to the rock art sites, and on making sure the significance of such visits was highlighted. This also would have controlled who visited the sites. Some larger sites are more easily accessed, but behavioural restrictions or social taboos could have ensured these sites were respected as well. It would seem that what is depicted by the rock art is something special, even extra-ordinary. I cannot imagine that sites would be hidden or difficult to access if the subject matter were a mere record of human activities.

More than half of the rock art panels were produced on surfaces set into the rock face, such as caves and alcoves, or in spots where the surface layer of stone has fallen away, leaving the interior exposed. The rock art was therefore largely produced on *interior* surfaces located in *subterranean* canyons. These places are in fact the closest a person can get to the inner regions of the earth; they are the final barrier which cannot be crossed, and where interaction with entities existing beyond these borders could take place.

I contend that the majority of the anthropomorphs in BCS rock art are spirits. Whether they are ancestor spirits, controllers of game, or otherwise, can only be guessed at. What is important is the idea that BCS rock art might depict entities from spirit worlds – this is enough to bring light to much of what has been discussed in this work so far. Before

these ideas are further illustrated by in-depth case studies, a few more categories of motifs need to be mentioned.

Other Motifs

Thus far, zoomorphs, polymorphs, and anthropomorphs have been discussed; these comprise three quarters of all motifs recorded. The remaining images are can be broken down into forms that are too faded or weathered to identify (16%, n=188), motifs which can be clearly discerned but it is not clear what they represent, including geometric motifs (8%, n=100), rain cloud motifs (n=7) and plant forms (n=6).

Geometric and Other Forms

The motifs in this category are very numerous in their forms, and are so site-specific that they are rarely repeated. A few examples are shown in *Figure 4.42*. Not all of the motifs I have placed in this category are so interesting as those illustrated here, some consist of just dots, lines, triangles, and many other forms which are not immediately recognizable as representative. The meanings of these forms depend very much on their context.

Figure 4.42 - Several examples of motifs which defy categorization and interpretation.

Rain Clouds

Six motifs resembling rain clouds were documented; five are shown in *Figure 4.43.* These consist of a flattened, oval mass with fine lines coming down from the bottom. These occur in most cases above anthropomorphs or other figures, and the largest image in the figure below seems to be raining down on the winged anthropomorph in the bottom right corner. These images are very suggestive, and certainly parallel a concern with rain which would have been present in Archaic times.

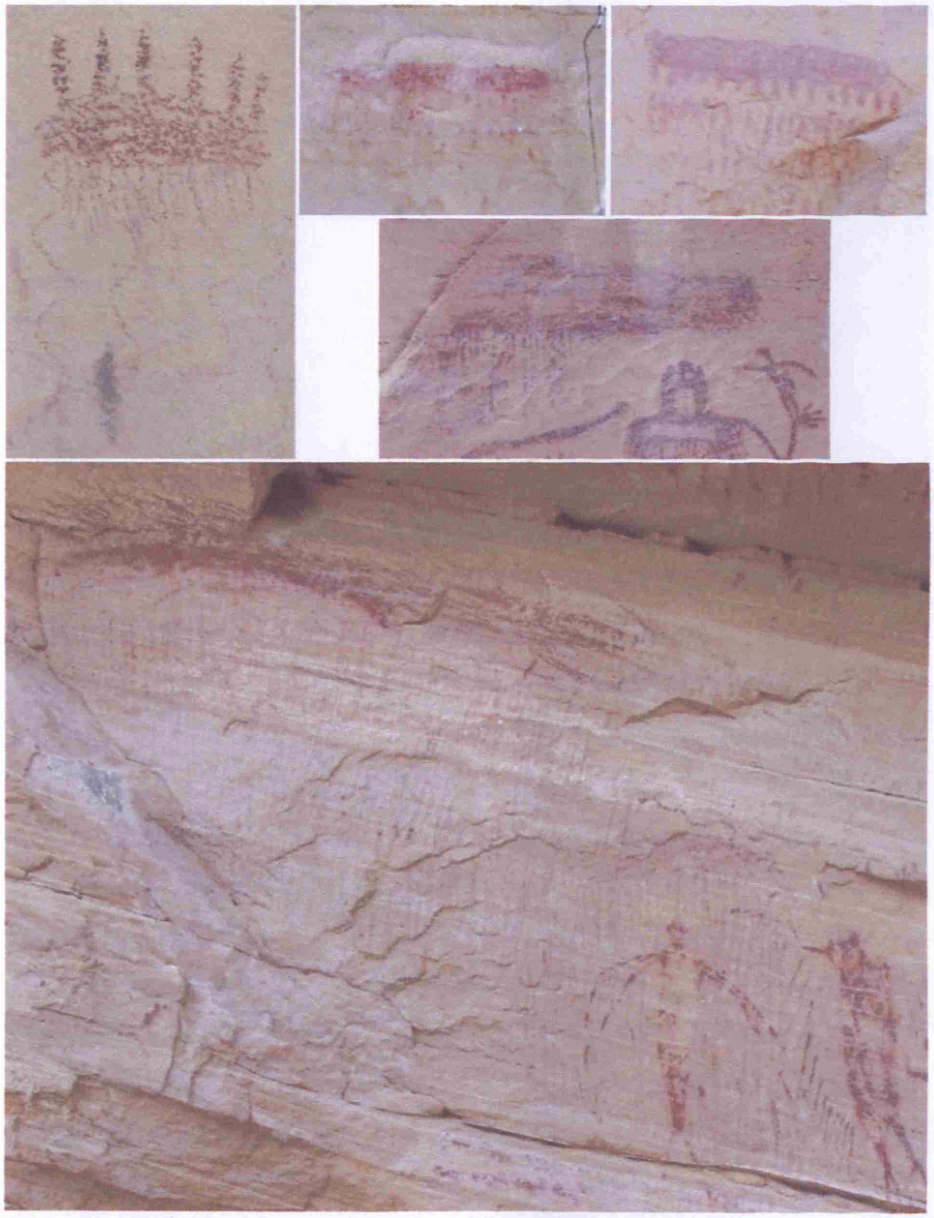

Figure 4.43 - Five of the six motifs in the rock art which resemble rain clouds.

Plants

Plant motifs are not common in this rock art, but those which do occur are very interesting. Usually these are held by anthropomorphs. In *Figure 4.40*, the small anthropomorph second from the left appears to hold a plant, and the anthropomorph in *Figure 4.39* holds a plant in each hand. In two sites, however, anthropomorphs are more closely related to the plant motifs they are associated with. In *Figure 4.44*, a plant is seen growing from the finger of a large anthropomorph's outstretched hand. Compare it to the plant shown in the inset – Indian Rice Grass (*Oryzopsis hymenoides*), which archaeological evidence tells us was a staple food during the Archaic. This image comes from the so-called Harvest Panel, named in part for several plant motifs featured.

Figure 4.44 - This image of an anthropomorph's hand shows a plant growing from one finger. The plant shown in the inset, Indian Rice Grass, was eaten during the Archaic (site 614-2).

Figure 4.45 shows a winged anthropomorph with a plant-like form depicted on the bottom of each wing. Other plant motifs are present at this site as well. Finally, the anthropomorph shown in *Figure 4.46* appears to hold a plant or bundle of plants in its one outstretched arm. What makes this figure most interesting are the roots which extend downwards from the bottom of the figure's feet, as though the anthropomorph itself were part plant.

Figure 4.45 - This winged anthropomorph holds a plant in each wing (site 403-1).

Figure 4.46 - This anthropomorph not only holds a plant-like form, but has roots growing from its feet (site 417-1).

Because the Archaic diet consisted primarily of plants, Archaic people certainly had an affinity with them. But the other major element of their diet, rabbits, occurs only rarely in the rock art. Ungulates such as desert bighorn sheep and deer are present, but they are almost always depicted quite small in comparison to the anthropomorphs; it is unlikely that they are shown as a food source, but are instead metaphors. It is therefore likely that these few plant depictions are also connotative. This possibility is enhanced by the anthropomorph in *Figure 4.46*, which has roots coming from its feet.

This concludes our examination of the formal qualities of the rock art. Some suggestions have been made regarding possible connotative associations for certain image types, but it was said that many images probably have site-specific meanings as well. These are explored next.

Part 5 - Case Studies

The following case studies both elaborate upon the theories and ideas presented so far, as well as provide more localized, site-centred interpretations of this rock art. Some explore a specific site in detail, while others explore a particular category of motif. The final study looks at the four major Horseshoe Canyon sites. At the end of each discussion, a few paragraphs are given to other sites which are similar in some way to those presented in the case study. For a summary of selected information about every site recorded, refer to **Appendix E**.

Green Snake Site (403-5)

This site consists of one panel of figures situated approximately 30 metres above the floor of its host canyon. The canyon is 200 metres wide at this point; its floor is flat and grassy, and is dotted with sagebrush and a few juniper trees. No stream runs through this canyon, but a dry and sandy stream bed is present, flanked on both sides by willows, signalling the occasional presence of water running through the canyon after a rain. Just upstream from the site, the canyon diverges into two smaller canyons, both of which lead eventually to the uplands. A small spring runs near the head of one fork, several kilometres from the rock art, but its output is small, and its runoff does not reach the rock art site. About 1.6 kilometres downstream from the site, the canyon opens into a wide valley.

The canyon is 80 metres deep at site of the rock art. The side of the canyon where the panel is found rises quickly, starting first as a long and steep span of solid sandstone climbing up at 45 degrees. Then, after the wall levels off for a few metres, it transitions to a sheer cliff with a slightly concave profile, creating an overhang of a few metres at the top. The bottom, sloped portion of the canyon wall is weathered grey and covered in lichen; the vertical part, more protected, is redder and free from growth. It is at the beginning of the vertical cliff face that the rock art panel was produced (Figure 5.1).

The canyon is most easily accessed via the broad valley at its mouth. The kilometre-long journey up the canyon is very easy-going, with no obstacles present. Accessing the site from either of the upstream branches of the canyon is slightly more difficult, but certainly possible. The canyons narrow as one moves up them, and the flat bottoms become more undulating, interspersed with rocks which must be traversed. Alternatively, one may climb down into the canyon from any one of several places in the uplands; the climbs are steep but not very difficult.

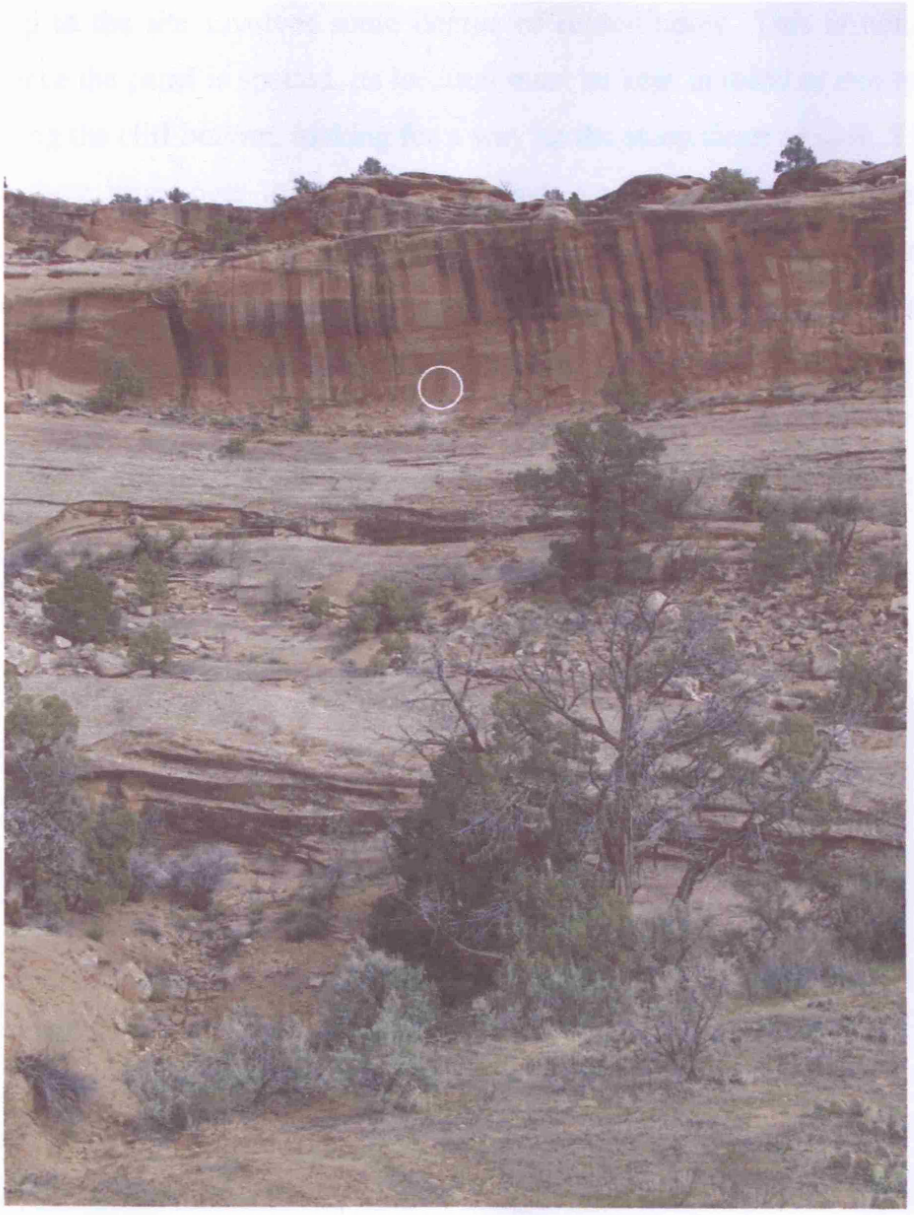

Figure 5.1 - The white circle highlights the location of the rock art at the Green Snake Site. The circle is approximately three metres tall.

Once in the vicinity of the rock art, the panel cannot be seen from the canyon floor until one is quite close to the cliff, and looking intently. The cliff face is covered with dark streaks, which are remnants of water running over the cliff face year after year, slowly resulting in a mineral build-up. The rock art is hidden amongst these stains, and easily blends in with the natural forms. It is not immediately apparent that it is possible to climb up to the base of the water-stained cliff – the rock below looks too steep – but it is possible.

Climbing up to the site involves some degree of route-finding. This is not a straight ascent, so once the panel is spotted, its location must be kept in mind as one traverses to the right along the cliff bottom, looking for a way up the steep slope of rock. I have been to this site three times over the past several years, and although I never remembered exactly where to climb, I ended up taking the same route every visit, suggesting there is but one way up the slope. The rock art remains invisible during the climb, even once the vertical portion of the cliff is reached.

Figure 5.2 - This is a view of the panel from the steep ledge below the vertical portion of the cliff. The art is circled in white.

After a strenuous climb, a place is reached where the rock is no longer so steep. This ledge is not flat, but one can stand and walk on it fairly comfortably. The ledge extends along the cliff face in both directions, and is quite large (Figure 5.2). The route up the cliff brings the visitor to a spot about ten metres to the right of the rock art. The first time I visited the site, once I arrived at the top, I was not sure which way to go to find the rock art, and ended up walking the wrong direction. The art is not visible from the point of ascent to the ledge, and even as one gets close to the images, they are difficult to spot.

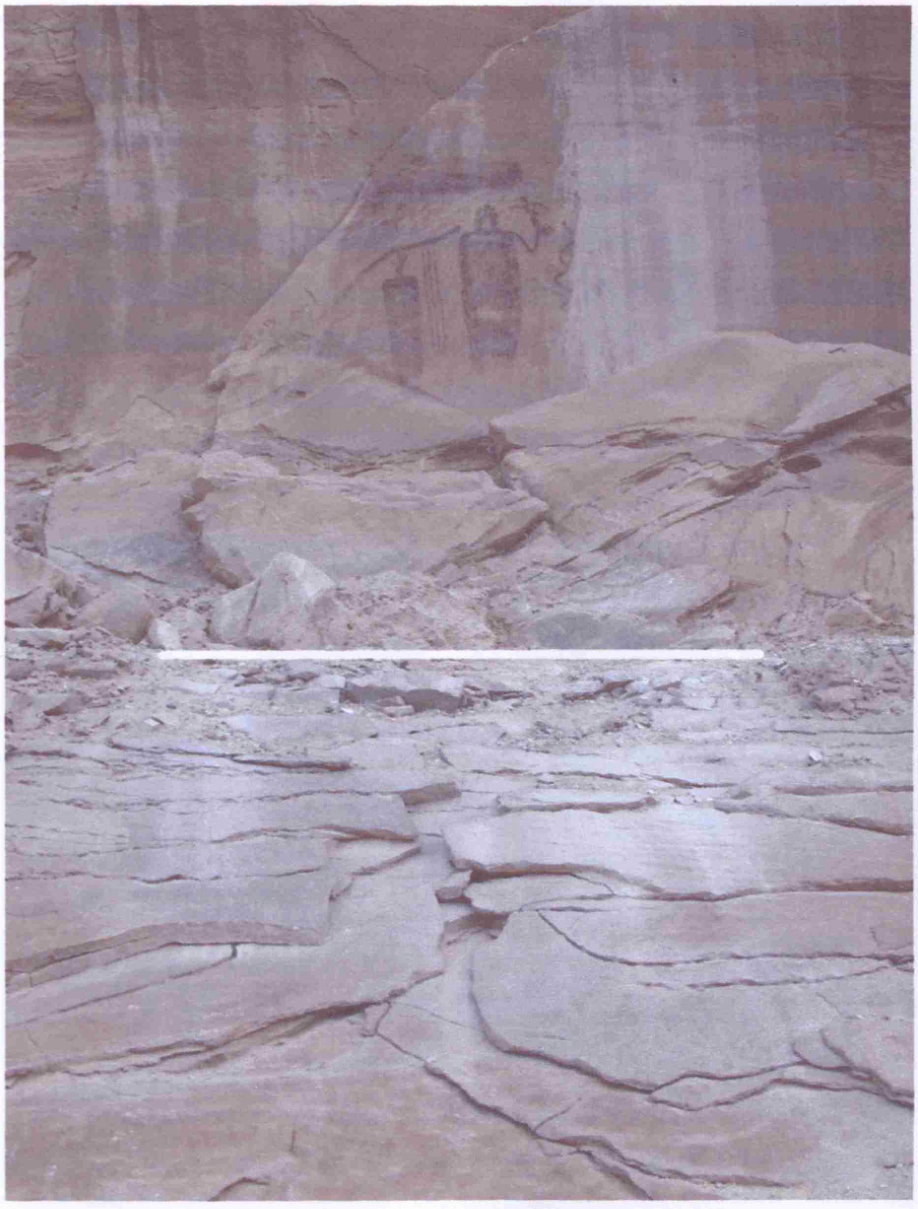

Figure 5.3 - The white line shows the level of the optimal viewing point for this rock art. One may also view the images from the large rocks just below the art.

Just below the panel, there are two large rocks, which today are rather worn down from the numerous recent visitors to the site. Below this, a small ledge, shown by the white horizontal line in *Figure 5.3,* provides a sturdy place to stand and view the images. The largest anthropomorph in this panel is one metre tall, and when viewed from this lower ledge, looms overhead. One may climb onto one of the two large rocks just below the panel, but from this vantage point, one is quite close to the vertical cliff, and it is difficult to view the images. There are, however, details in the art, namely the blue-green pigment in the eyes and mouth of the large anthropomorph shown in the inset of *Figure 5.4*, which can be clearly seen only from on top of these rocks.

Figure 5.4 - The entire panel, with a close-up of the larger anthropomorph's head shown in the inset.

The place in which this panel was produced is visually very large. The view from the decorated panel outwards shows the broad canyon below. One branch of the canyon can be seen upstream, but the other is obscured by the curve of the cliff, so it is not apparent that a canyon intersection is nearby. The sloping ledge below the art extends quite far in both directions, though if one follows it either way, it eventually terminates, and leads nowhere. Once a person climbs to the ledge and visits the rock art site, the only place to go is back down into the canyon.

Looking again at *Figure 5.1*, it becomes apparent that the art was put in one of the few places along this cliff which is free of water stains. The photograph reveals two other clear areas, about ten metres on either side of the panel; these, however, are not smooth faces, and would not support rock art very well. Furthermore, they lack the rocks which are present at the base of the decorated panel, which were presumably used to stand on when the images were painted. More areas outside this photo are free of water stains, but only the spot where the rock art panel is found is well-suited.

The physicality of this place therefore contributed to the artist's decision of where along the cliff to put this rock art, but does not reveal why this place was chosen. There are several possible reasons. First, this canyon is in fact host to a total of eight BCS rock art sites, which is unprecedented considering how short the canyon is; I know of no other area so rich in this style of rock art. It seems the canyon was well-travelled; indeed, it is an easy path to follow, which leads from the broad valley at its mouth to the resource-rich uplands. The canyon is also home to a few large and habitable alcoves, and contains a small spring. The canyon was clearly important during the Archaic.

Second, when viewed from afar, the ledge where the rock art site is found is visually striking (Figure 5.5). The red colour of the rock stands out strongly against the grey cliff; it looks as though the very rock has split open to reveal the un-weathered interior. Only the dark water stains which stripe the cliff attest to the great age of this exposed surface. This red, striped lens is a qualitatively different piece of the land, and drew the artist here.

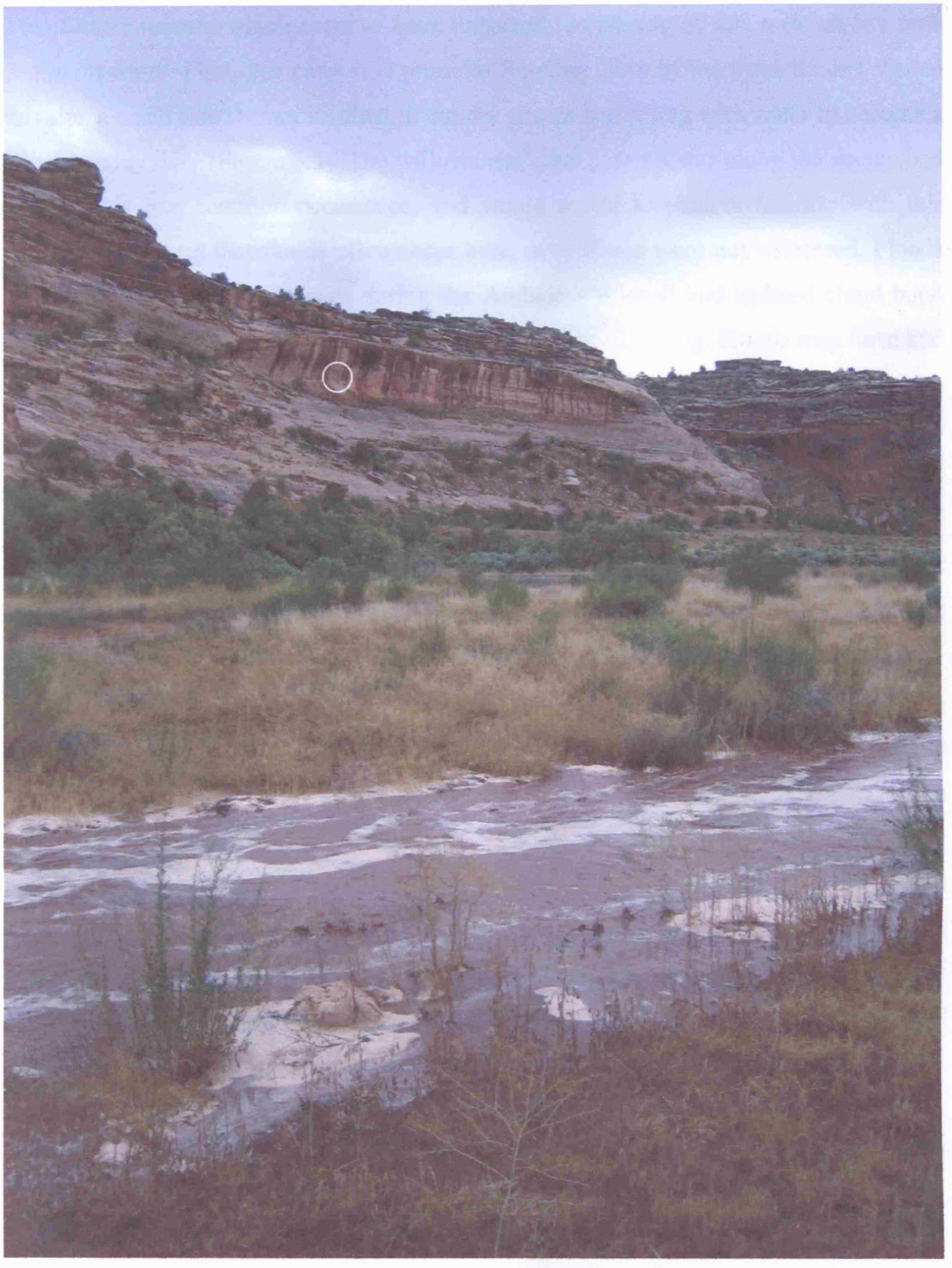

Figure 5.5 - The host canyon of the Green Snake Site during a minor flood. The location of the panel is visible in the background; the white circle shows where the rock art is.

Two further reasons which seem to have impacted the placing of this rock art site both deal with water. First, this canyon is prone to flooding. Two of the three times I visited this site, a small rain shower resulted in the dry stream bed filling with water to become a small, muddy river (Figure 5.5). The willows and other green plants along the stream bed suggest this is a common occurrence, and would reveal to visitors familiar with this desert environment that floods often occur here, even if one were not witnessed. Floods were probably significant events during the Archaic – a small and isolated cloud burst creates a river, which flows long after the rain has stopped falling. Floods may have had metaphorical connotations; this would have placed special importance on flood-prone canyons. This possibility is strengthened by the unusually high concentration of rock art in this canyon.

The final element which may have contributed to the placing of this particular rock art site is the water stains which cover the surface of the cliff where the art was painted. It was already said that it is difficult from even a modest distance to distinguish between the rock art and the water stains – it is as though the stains are a natural rock art, or perhaps the reverse is true, that the elongated forms in this rock art mimic water stains. This ambiguity is present at other sites, mentioned below. Furthermore, the water stains suggest water runs over this cliff face after every storm, and always follows the same path. Water running down this cliff, bathing the rock after every storm, is a potential source for strong symbolic associations. Water becomes integrated into the pictorial dimensions of the rock art, adding a dimension of motion, sound, and dynamic action to the images under certain conditions. A temporal dimension is also introduced, as the cliff and the images it supports are periodically animated by flowing water.

Ego (2001) explores connections between San rock art and water stains in the Brandenberg, noting a strong correspondence between water stains and depictions of both rain animals and snakes. In these instances, the images are actually superimposed over water stains, resulting in the actual motifs being bathed in rain water. *Figure 5.4* reveals this happening at the Green Snake site – the right-most snake motif is partially obscured

by a white water stain. Interaction between the rock art and rain water is similar in both instances.

Closer to the study area, McPherson (1992, 27) documents that the Navajo, who populated the southern-most portion of the study area and down into New Mexico during historic times, also placed importance on locations where cliffs are streaked with water stains. The Navajo used such places to pray for rain. On this same page of McPherson's text, he discusses strong symbolic associations in Navajo cosmology between snakes and rain.

In this light, it is interesting to note that not only are snake motifs a prominent element in this rock art site, but a rain cloud motif appears over the whole composition, sending its water down over the other figures: two anthropomorphs, two snakes, and a set of three parallel vertical lines. The two anthropomorphs have torsos which were painted with the artist's fingers, resulting in a vertically-striated pattern, perhaps also connoting falling rain. The larger anthropomorph has blue-green pupils in its hollow eyes and, in its gaping mouth, a small snake of the same colour can be seen. The larger anthropomorph also holds, in its one outstretched arm, an anthropomorphized bird. Between the two anthropomorphs are three parallel vertical lines.

One possible interpretation of this panel suggests the anthropomorphs are spirits which have power over the rain, most especially the one with a snake in its mouth – it is embodied by a rain symbol. The two other snake motifs and the rain cloud strengthen the association between these beings and rain, as do the water stains on the cliff, and the very canyon which hosts this site. Even the blue-green details in the larger anthropomorph add a colour symbolism to the panel. The bird-like motif is perhaps a messenger – a metaphor connoting communication between the beings depicted at this site and those who came to visit it. The congruities between the artist's choice of images and the place in which they were produced was very probably intentional.

Other sites in this same canyon also contain water/rain related motifs. Three of the remaining seven sites have snake motifs, and one very near to the Green Snake site sports a rain cloud. Perhaps the most interesting figures are at a site about three kilometres upstream from this one. Here, along with a snake, are two motifs composed of a horizontal line on top, from which numerous vertical lines stream downwards (Figure 5.6). These figures are painted in red and blue (blue pigment, incidentally, is found at three sites in this canyon, but at just two others across the study area). These vertical line motifs are suggestive of falling rain. They also, as we saw in the previous chapter, form anthropomorphs, and are formally related to the wings on several anthropomorphic figures.

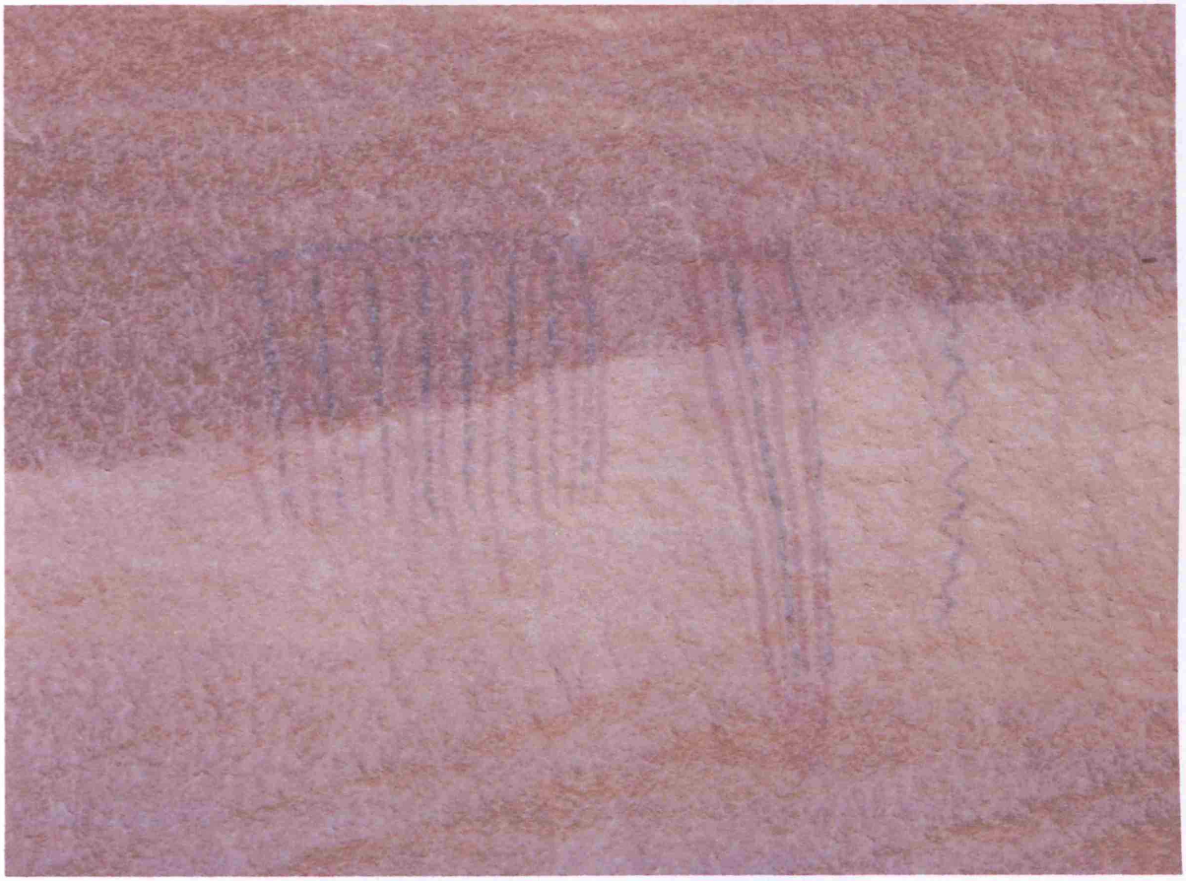

Figure 5.6 - These figures are suggestive of falling rain (site 405-2).

Elsewhere, at the Buckhorn Wash site (Figure 5.7), water stains cover much of the cliff face, but are absent where the rock art was placed. Sucec (1996) provides an interesting discussion of water and rain symbolism at this site, which is filled with vertical parallel line imagery, several snake motifs, and seven winged anthropomorphs. He relates the parallel line imagery to falling water. *Figure 5.8* shows two anthropomorphs from this site which appear to have water streaming from their arms. Interestingly, these motifs are also formally similar to the water stains which run down the cliff face.

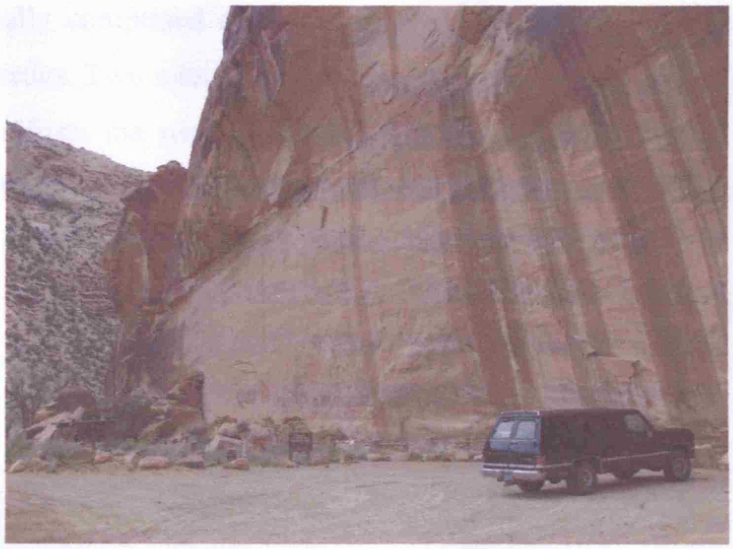

Figure 5.7 - This site boasts a number of possible rain-related motifs, and the decorated cliff is inundated with water stains (site 403-2).

Figure 5.8 - These two anthropomorphs from Buckhorn Wash appear to have water streaming from their arms.

These rain/water associations attached to some sites – in the canyons where the art was produced, on the decorated rock faces, and in the art itself – are to be expected in this rock art, given the unpredictable nature of rain in this desert environment. Rainfall was one of many elements in the world of Archaic hunter-gatherers which they could not directly control, though perhaps they tried to influence it. These sites seem to be a testimony of the role some of this rock art played in their pursuit of rain.

Yellow Comet Site (407-1)

This site is actually comprised of four distinct panels of rock art, each with its own unique characteristics. Two sites are painted in the traditional manner, but the other two depart somewhat from the usual pattern, and are comprised mainly of motifs which lightly scratched or abraded into the rock face, though some of these figures are augmented with small areas of pigment. One of these scratched sites is the most difficult site to access of all sites recorded for this study. The four sites are in close proximity, all occurring within a 200-metre span of cliff, but each is unique in every respect.

Figure 5.9 - The canyon which houses the Yellow Comet Site is enormous; this photograph is taken from the rim, at the location of the point of descent into the canyon.

The canyon in which these sites are located might more properly be called a gorge (Figure 5.9). It is over 100 metres deep where the rock art sites are, and grows to over 300 metres deep at its mouth, some 12 kilometres from the rock art. The floor of the canyon is very flat and rolling, populated primarily by small sagebrush and grasses. At the locus of the rock art, the canyon is 300 metres across; just downstream it grows to a width of 500 metres. Being in this canyon is very unlike most local canyon environments, as the clear linearity of the smaller canyons is absent here, so large is the floodplain. One is free to move in many directions, though when the canyon walls are encountered, movement must stop, as the cliffs bordering this gorge are sheer.

Entering this canyon to visit the rock art is not an easy task. One approach is from the mouth, walking the 12 kilometres upstream to the sites. The mouth of this canyon actually meets the Green River gorge, so one must first climb down to the river before walking upstream. I have not done this, but know it is possible, as I have seen tire tracks in the sand as far up as the rock art sites, so it is passable by certain motor vehicles. This canyon appears to provide an excellent path between the river and the areas near the head, so this is certainly one way Archaic peoples might have travelled.

If using the canyon as a path leading from the river to the uplands, one must leave the canyon at some point. As was mentioned, however, the canyon walls are sheer and vertical, and cannot be scaled. I know of only one way out at this end of the canyon, about a kilometre upstream from the rock art sites, and a few kilometres from the end of the canyon. It is unlikely that someone would stumble upon this path. I was shown this way into the canyon by another, and would have been lost without the guidance. From the canyon floor, one must first ascend a long, steep talus slope to the base of the cliff. After passing over a few benches, one must then crawl through a crack no more than 40 centimetres tall for a distance of about 10 metres, being careful of the 50+ metre drop on one's right. After this crack, more benches are ascended, one after another, to the top of the cliff. The way is equally unapparent from the top looking down, and the cliff seems absolutely impassable.

While there may be another way in or out of the canyon in the vicinity of the rock art, I know of none, and all the people I have talked to know of none. A local 'canyoneering' guidebook (Kelsey 1992) also mentions this as the only path into the upper part of this canyon. Because of its proximity to the rock art, I think it likely that Archaic peoples used the same path to access the canyon.

If climbing down this path, once at the bottom of the canyon, the way becomes easy. A kilometre-long walk along the rolling bottom brings one to within sight of the art. Only one of the panels is visible from the canyon floor, and the art appears extremely small against the soaring cliff and the furniture-sized rocks below (Figure 5.10). It is apparent from a distance that there is rock art here, but it is impossible to tell just what it is.

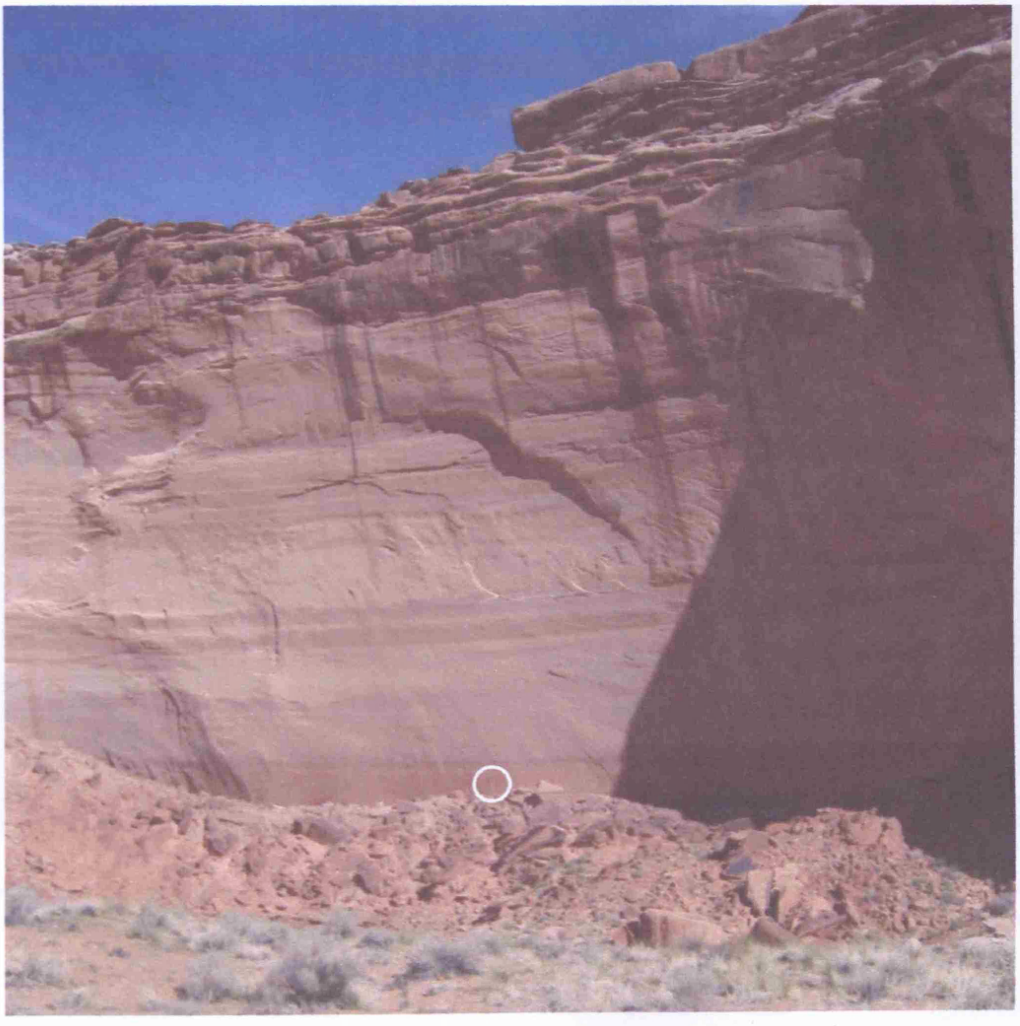

Figure 5.10 – The circle, about three metres tall against the cliff, shows the location of the first panel.

Walking towards the cliff, the apparent size of the figures grow, but so does the size of the rocky slope beneath them. The images disappear from view for a short time as one begins to climb, but reappear close to the top of the slope. From there, one may choose one of a few rocks to stand on to see the images, though I hopped between several to get different views. There are flat sandy spots between the large rocks which offer a firmer footing, but from these places, the art is far overhead; the taller rocks offer a better view. Interestingly, once at this site, the figure-ground relationship between the cliff and the rock art is reversed. From a distance, as shown in *Figure 5.10*, the cliff dominates one's visual field, and the art is miniscule. From the rocks below the panel, however, one cannot see the cliff in its entirety; the rock art instead dominates.

Figure 5.11 - The first panel at the Yellow Comet Site, and the one which gives it the name chosen here. Note the yellow not only in the comet-like motif, but also around the large anthropomorph.

This panel is the largest of the four, and consists of two anthropomorphs, a bighorn sheep, and three other motifs (Figure 5.11). The largest anthropomorph is over two metres tall. The motifs are all done in the same red pigment, and in the right light, yellow pigment can be seen in the comet-like motif on the left side, and also around the large anthropomorph.

A theme of transformation is seen in this panel. The large anthropomorph has six fingers on its left hand, but its right arm bifurcates, and lacks a hand. Similarly, its right foot is naturalistic, but its left has ten toes. The anthropomorph appears to be undergoing some sort of transformation. Above its head is a partial arc, painted in red. If the yellow pigment in the panel is artificially enhanced, it becomes apparent that this red arc is completed in yellow, and a second yellow arc is painted above it (Figure 5.12). Other yellow designs come out in this image, including a snake held in the large anthropomorph's left hand. This panel is south-facing and is subjected to direct sunlight most of the day; the yellow pigment, now faded, was probably more visible in the past.

Figure 5.12 - Enhancing the yellow brings out details which were probably more visible in the past.

These arcs are a motif found at many sites, usually depicted in this same way over the heads of anthropomorphs. They are also found in the form of the rock, as arc-shaped alcoves beneath which rock art was painted. These forms, whether natural or painted, work to modulate space, enclosing the anthropomorph within them, and setting it apart from the rest of the panel or rock face. This anthropomorph, the largest motif, fringed in yellow, is the central motif of this panel.

The other motifs in this panel are more enigmatic. The smaller anthropomorph is very stylized, consisting of a torso, two small legs, and a T-shaped head. The two lanceolate motifs on the right are very unusual, and show up at one other site 112 kilometres to the north-west. The small bighorn sheep on the far right is a common form in this rock art. Finally, the comet-like motif on left the might be anything.

While it is not clear what is being depicted by most of these motifs, the physicality of the site is interesting. The images were produced in a place that allows for easy visual and physical access. The figures can be seen from a great distance, and when the visitor is close to the art, the large anthropomorph can be confronted in a direct and intimate manner by standing on rocks close to the cliff face. The site would draw passers-by up the rock slope to the cliff, and during this journey, the apparent size of the figures would grow, until finally the large anthropomorph is bigger than an average person, looking down on the visitor with its hollow eyes. Not many people could comfortably gather here at once, though the scale of the site suggests it may have been used for public ritual.

The second painted panel (Figure 5.13) is located about 200 metres to the left of this place. If approached from below, the art is invisible until one is right on top of it; it cannot be seen from the canyon floor. The panel may also be accessed from the first panel – this involves walking along the cliff, up and over a large hill of rocks. The second panel is small, consisting of only three figures painted low to the ground. They were placed on a flat, smooth rock face immediately to the right of a large, deep alcove. This alcove has not been excavated, but casual inspection revealed numerous lithics, a partial projectile point which appeared to be of Archaic age, and numerous looter pits.

Figure 5.13 - The second panel at this site is dominated by an anthropomorph painted close to the ground; two much smaller figures, now very faint, are found to the right.

The three figures at this second panel are all anthropomorphs. Two, painted in a bright red pigment on the right side of the panel, are the same size – 60 centimetres tall – and are today very faint and hard to see. Their forms are simple, consisting of a narrow torso and rounded heads with no appendages. The larger anthropomorph, done in a darker red pigment, stands 150 centimetres tall, and was painted very low to the ground. The white colouring on the rock face is natural, and is probably the result of minerals leeching up into the sandstone from the ground; this happened after the images were produced.

The ground in front of this site is flat and sandy, and no effort is required to view the images. Even the largest anthropomorph is small relative to a person, and it is difficult to engage with the figure on a corporeal level without crouching or kneeling. Perhaps the most interesting aspect of this site is its proximity to an obvious habitation area. Without

excavation and firm dates it cannot be known whether the alcove was inhabited while the art was produced, but the degree of debitage in the alcove suggests long habitation. Further, as the other panels in this area are discussed, it will become clear that the area was used extensively during the Archaic, and it is likely that the alcove was inhabited at the time. While the proximity of this rock art panel to a habitation area might suggest a non-ritual status for the art, the final panel discussed below, also associated with the alcove in a unique way, is very clearly a ritual site.

A third panel of images is found between the two discussed so far. The panel consists of perhaps ten images strewn along the cliff to the left of the first panel; these are passed as one climbs over the hill of rocks towards the alcove. The number of images in this area of the cliff is approximate because all of the images are very difficult to see today. They are abraded, scratched, or lightly painted onto the rock face, and in direct sunlight are all but invisible. The cliff supporting the images is south-facing, so one must arrive at the site very early or very late in the day to see the images in shade.

Two anthropomorphs can be clearly made out. One is composed of a few lines of white paint, which the artist probably applied to the rock with his or her fingers (Figure 5.14). This figure is 160 centimetres tall. Two lines form the sides of the torso, and two form the sides of the head. Several lines of tick-marks within the torso suggest body patterning. Eyes are also present. The image seems to have been painted quickly, and the minimal form just manages to suggest an anthropomorph.

The second anthropomorph at this panel is much more difficult to see, and could not be captured by the camera. Its torso is rectangular, as is its head. Thin, straight legs are depicted, but no arms. The 130 centimetre tall figure was abraded into the rock. A small sheep is also abraded into the cliff face; its form is nearly identical to the sheep painted at the first panel at this site. The final identifiable motif is a very large ungulate, three metres in length and over a metre tall. Its branched antlers suggest it probably represents an antelope or a deer.

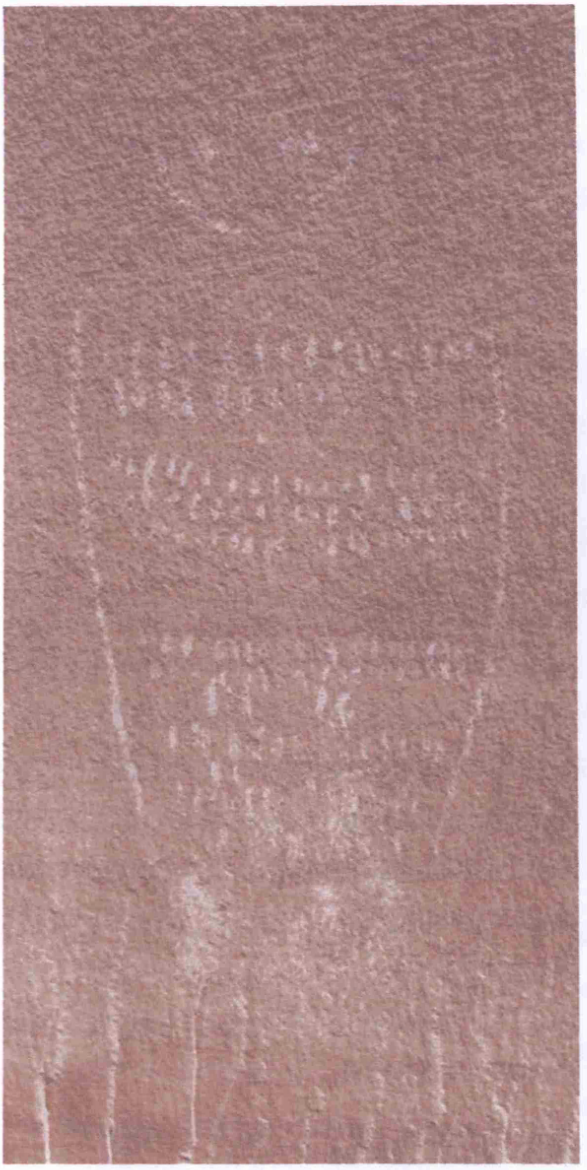

Figure 5.14 - This grouping of lines suggests an anthropomorphic form.

In addition to these figures, dozens of incised lines criss-cross the rock face. In the right light, after some searching, these begin to form anthropomorphs of various sizes, always simple in form and reflecting the standard torso-head combination. It is impossible to tell how many motifs these lines compose, or just what they look like, as the lines are today so faint that they are difficult to see even in the best lighting conditions.

The motifs depicted in this panel are rather standard – anthropomorphs and ungulates – but the manner in which they were produced is unusual. The one painted form is

minimalist, and represents a very small amount of work when compared to some of the more complicated polychromatic figures in this tradition. Similarly, the abraded and incised figures seem almost impromptu. Although we cannot tell today how many figures there once were along this section of the cliff, the number of abraded lines suggests there were many.

This panel is very different in contrast with the two painted panels in this area. Though the accessibility of the site is similar to the others, and the manner in which the images must be viewed – standing on top of large rocks – is similar to the first site explored, the visibility of the images is very low. The first panel can be seen from the canyon below, and the second, though it is invisible from below, still stands out against the cliff face. These images, however, are easily passed by. Even when they were fresh, the contrast between the abraded or incised rock and the untouched surface would not be great. The importance of these figures, it seems, was not primarily visual. Perhaps the act of making them was the significant aspect of the images in this panel.

The final panel at this site further suggests that these abraded and incised images were not meant to be viewed, but rather that the act of making them was in itself important. Unfortunately, I have no pictures of this panel, as I have not actually seen it. It is so difficult to reach that I had to recruit my friend Marcus, who is an avid rock climber, to explore the site for me. In fact, I was not even sure there was rock art in this place when I sent him up there, but I had a suspicion.

Figure 5.15 shows an overall view of this whole rock art site; the numbers correspond to the four panels present here, in the order in which they have been discussed. Recalling that this cliff is actually 100 metres tall, the location of this fourth panel, about 75 metres above the canyon floor, is amazing. Straight below the *4*, and to the left of the *2*, the large alcove can be seen. The fourth panel is far above the alcove, and is accessed by a natural ramp extending up the cliff face.

Figure 5.15 - This long view shows the location of the four panels which comprise this rock art site. The numbers correspond to the order in which they are discussed in the text.

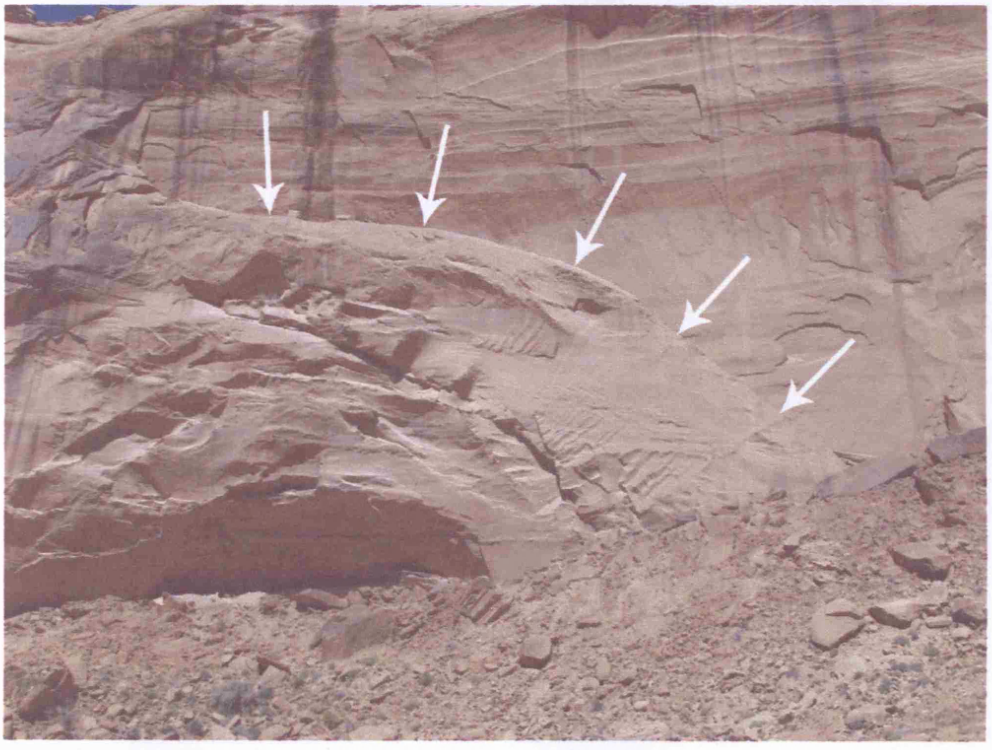

Figure 5.16 - The ramp leading up to the fourth panel at this rock art site. Note the alcove below.

I first noticed this ramp on an early visit to this site. I was photographing the alcove and its position along the cliff, when I became curious about a line running up the cliff face at an angle, then tapering off to a flat ledge high above the alcove (Figure 5.16). I climbed back to the cliff for a closer look, and discovered that this ramp, ranging from one to three metres in width, is actually augmented with small steps (Figure 5.17). These are not stair-steps, but rather small hand- and foot-holds in the form of ovals, one or two centimetres deep, pecked into the stone. They run the entire length of the ramp, concentrated in areas where no natural features allow for traction. The ramp is steep, and the rock is slick, so I did not climb to the ledge, but I was intrigued that someone would put forth the effort to carve these steps. Something, I was sure, was at the top.

Figure 5.17 - This close shot of part of the ramp shows a few of the carved hand and foot holds, which extend far up the slope. Marcus, who climbed the slope, estimates there are 30-40 of these steps.

I returned to the site a few months later with Marcus, the climber. He ascended the ramp without a rope, and later commented that it was one of the most difficult free climbs he has ever done. The carved steps, he says, made the climb a bit easier, but he spent most of the climb hugging the cliff face, with his right arm and leg stuffed into the crack between the ramp and the cliff. *Figure 5.18* shows him nearing the top of the slope.

Figure 5.18 - Marcus approaching the top of the ramp before it flattens out to form a ledge.

After reaching the top, Marcus started shouting down what he saw which, at first, was nothing. The cliff face was in direct sunlight, and he saw no painted forms. Gradually, he began to make out abraded areas and incised lines, and commented on the similarity of the face to the site along the cliff below. After some searching he was able to make out one anthropomorph, about a half metre tall, of the plain variety – just a torso and head. Thought the cliff face was full of incised lines and abraded areas, forms were difficult to make out.

At the top of this steep ramp, which someone spent a considerable amount of time altering so that it is easier to ascend, are the same lightly incised and abraded forms as were seen in the panel below. This high and extremely difficult to reach place, found in one of the largest canyons in the whole study area, is home to one of the most visually uninteresting sites recorded for this study. My confusion regarding the nature of this site was then expanded.

Marcus finished looking at the scratches in the wall, and was about to climb down, when he noticed markings on the rock he was standing on. They were tool grooves – long channels about a centimetre deep carved out of the horizontal sandstone surface. These kind of marks were formed, it has been presumed, when sandstone was used as an abrasive for sharpening stone tools. *Figure 5.19* shows similar markings below another BCS rock art site. These marks were noted at five other sites, including the Great Gallery. They are also common near habitation areas, and are usually considered to be utilitarian.

The utility of sharpening tools on this high ledge, however, is questionable. These and similar markings below other rock art sites are probably the result of ritual activity, perhaps from scraping the rock to remove and take away part of a sacred site, or maybe they represent ritual contact with the stone, a way of cutting into and breaking through the boundaries between outside and inside. The fact that these grooves are found at this high and rather inaccessible site make it very likely that these markings are not the result of utilitarian activity, though similar markings near habitation sites might well be.

Figure 5.19 - Grooves like these cover the ledge far above the alcove.

On the way down from this panel, Marcus discovered yet another surprise. The cliff face adjacent to the ramp, he noticed, exhibits what climbers call *body rub*. This phenomenon is common at the more popular climbs in and around the study area. When a route requires climbers to use a sandstone face as support, as Marcus did when climbing this ramp, the natural varnish wears off of the stone over time, and leaves a swath of lighter-coloured stone exposed. The body rub here extends along the cliff face for most of the way up the ramp. This, Marcus says, is evidence that the site has been visited by a very large number of people – hundreds at least.

This is not a well-known rock art site, and despite the fact that the area is accessible to some four-wheel drive vehicles, it is not likely that the body rub found here is the result of recent climbing activity, as the surrounding area sports hundreds of more accessible climbing routes. This evidence for heavy visitation in the past seems to be an indication that although the art at the top of the ramp is not visually impressive like most BCS rock art, the site itself was very important. This collection of the ramp, the ledge, and the rock

art at the top are one part of a large rock art site near a habitation area. People staying in or visiting the alcove, might have included in their visit a climb up this ramp to experience the rock art at the top, or perhaps to make more, or just to scrape into the surface of the ledge in one of the many tool grooves. The climb was clearly a trial, and the reward for passing was probably the chance to enter a very sacred space, and to engage with it physically.

The combination of four panels at this site is unique. The first is a panel of large images, visible from below, which would draw people to the cliff, and could have been the setting for public ritual. The painted panel near the alcove is much smaller in scale, and the place around it is not capable of supporting an audience. The rock art is not visible from very far, and its proximity to the habitation site may suggest it was used in a different way. The incised, abraded, and painted figures between these sites were made quickly, and were not very visible. Perhaps they are traces of visitors to this rock art site who were not able to climb the ramp. The art at the highest panel is again different from the rest, tucked away in a place difficult to reach, yet seemingly built for human use. These four sites comprise one of the most interesting BCS rock art sites.

The incised figures found in two panels at this site are not restricted to this place, but are found in many sites throughout the Horseshoe Canyon drainage, not far from this canyon. I have not seen them outside this area; they appear to be a regional phenomenon. The incised figures are predominantly anthropomorphs, though some zoomorphs and possible polymorphs are also depicted. The motifs are usually small, 20-40 centimetres in height, and are very difficult to see. All appear to have been made quickly with a sharp tool, and all are difficult to see today. Many more may exist, but they are easily passed by.

Lone Anthropomorphs

This study explores five of seven sites which contain only one anthropomorph. Two of these have areas of pigment in addition to the anthropomorph, and may have once contained more motifs, but they would have been small, and subsidiary to the

anthropomorphic figure. Two of these sites are from the Maze area, two are from the Needles, and one is located in the Moab area. Each site is unique in its own respect.

Maze 1 (612-2)

This site (Figure 5.20) consists of a small and simple anthropomorph, just 30 centimetres tall, painted on the back wall of a medium-sized alcove exhibiting habitation debris, including ground stone, a hallmark of Archaic-aged sites. The alcove is in a strange canyon – it is a hanging canyon, meaning its mouth empties into a deeper canyon – this one with a drop of some 250 metres. The canyon does not therefore lead anywhere, so once a person climbs in, the only place to go is to climb back out. The canyon floor is wide and flat, and dotted with sagebrush and some trees. Though I had to hunt for a way down into the canyon, I entered about a kilometre north of the site, and there appear to be more ways down as one moves closer to the canyon mouth.

Figure 5.20 - This first single-anthropomorph site is actually an alcove exhibiting habitation debris. The location of the anthropomorph is shown by the white rectangle; the inset shows a close-up of the simple, painted figure.

The alcove is situated in a small cove off of the broad canyon. The cove contains a pour-off, where water would cascade down during a rain, and collect in a pool below. I visited the site several days after a rain, and found the ground was still moist beneath the pour-off. The alcove in this sheltered cove is south facing, and the back wall is smooth, flat, and framed by a natural arc – the perfect space for supporting rock art. The anthropomorph is painted about a metre above the rocky talus seen in the photo above. Though the floor of the alcove is just a few square metres today, the amount of cultural debitage eroding from it suggests it was more substantial in the past.

Accessing this place involves climbing into the hanging canyon, walking easily along its floor to the cove, then climbing slightly to the alcove. The alcove was certainly occupied, though when and for how long has not been determined. The small anthropomorph is simple in design, and little time was spent painting it. Its position in the centre of the half-circle of wall space forming the back of the alcove is interesting. Perhaps the figure was placed here because the physicality of the shape of the wall is so unique. These natural arcs, when found in the study area, very often contain rock art.

Maze 2 (426-1)

The second site in the Maze area consisting of a single anthropomorph is similar to the first in one respect – it is found in a habitation site. The site consists of two small caves, side-by-side, perched about 50 metres above the floor of a canyon. The caves are accessed by first climbing a steep talus slope, then switch-backing up a series of benches to the caves. Just across the narrow canyon from the caves is a large sand-slide, which provides easy egress from the canyon. The canyon can not be exited from the caves.

The left-hand cave exhibited several storage cists in the floor at the rear; these were found lined with sandstone slabs. Slab-lined storage cists were not used during the Archaic, but are common in later Fremont-age sites. A corn cob on the floor further evidences later use of the caves by agricultural peoples, though it is certainly possible they were used during the Archaic as well.

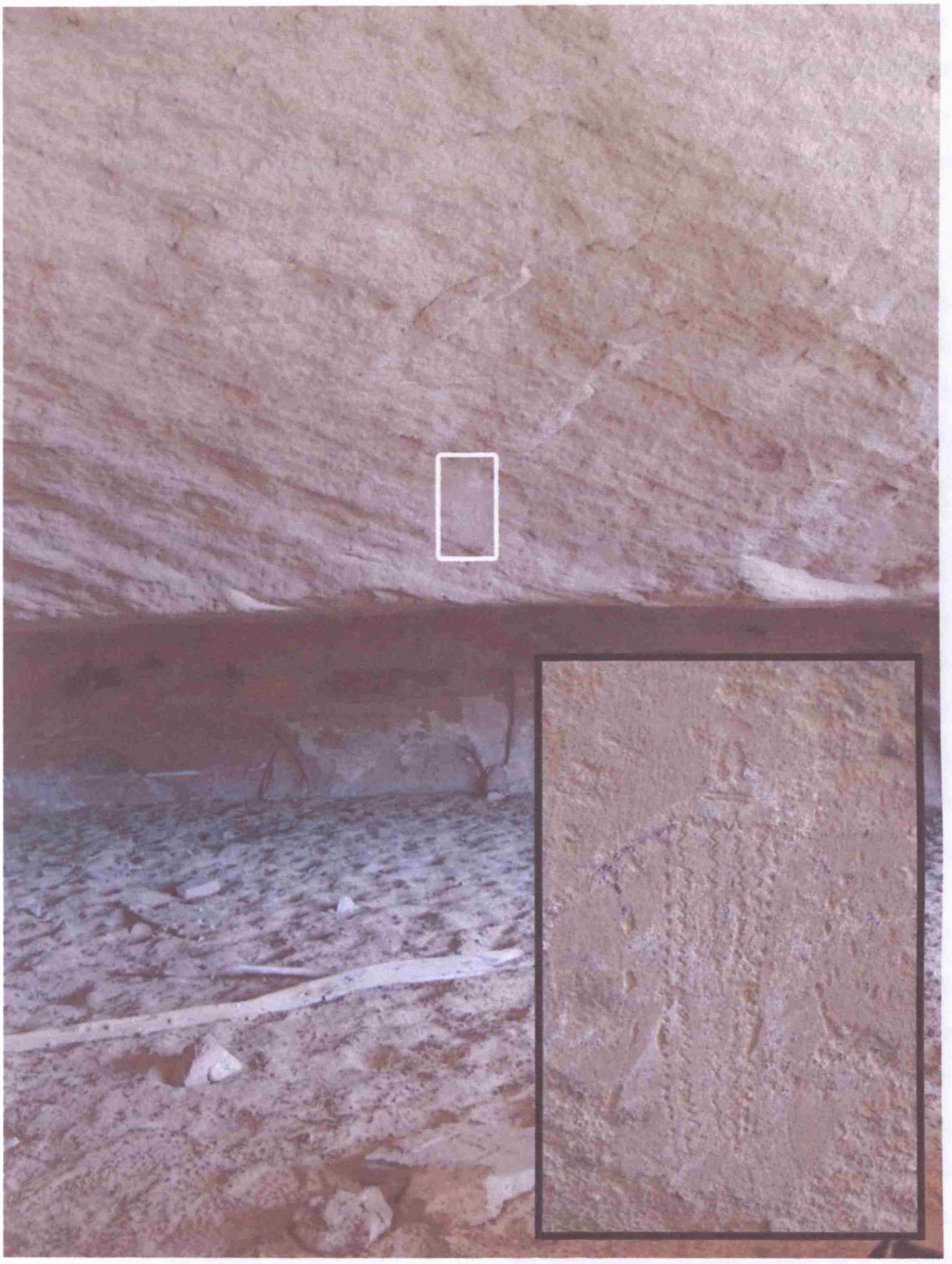

Figure 5.21 - This photograph, taken with a flash inside the small cave, shows the position of the anthropomorph in the white rectangle; the inset is a close-up of the incised figure.

The cave on the right did not exhibit any surface artefacts, though its entrance is partially walled-up with stones. The profile of the cave begins with a high, domed ceiling just inside the entrance, but towards the rear of the cave, the ceiling curves down to near-vertical surface, then with a sharp transition it extends horizontally towards the back at a height of perhaps one metre before ending in the rear wall (Figure 5.21).

It is on the near-vertical portion of the cave ceiling, just before it transitions to horizontal, that the anthropomorph is found. The figure is only 20 centimetres tall, and is incised with a sharp tool into the stone. Though I knew roughly what to look for when I got to this site, the figure is so difficult to see that I had a very difficult time finding it in the small cave.

The rock surface on which the figure is incised is rough in texture, and rather soft. The surface of the stone appears to have been rubbed or scraped smooth in the area around the image, probably just before the figure was engraved. The anthropomorph has a torso comprised of six vertical and parallel wavy lines, topped by a horizontal wavy line. The head is unusual – two short parallel lines form the base, and above those is a form which looks like the print a deer's hoof would make in soft soil. It appears as if small arms were added to the figure with charcoal, though this may be modern. There are also some white finger smudges over the whole figure.

Viewing this figure, because of its position on the cave ceiling about a metre above the floor, requires one to crouch or bend over. It is possible, however, that the fill inside the cave was lower during the Archaic, and that the figure was once higher above the floor. There is enough light coming in from the cave entrance during the day to see the image, though a flash was used to photograph it. The image is small and delicate, and within the confines of the cave, which shuts out light and sound, provides a distinct sense of place, and keeps the air much cooler than the outside, encountering this figure is a unique experience. It is very personal, and rather unlike other rock art in this tradition. No other sites were recorded in such a small, enclosed space. This image is very much set aside from the outside world.

Needles 1 (429-2)

The first lone anthropomorph from the Needles region is in a site which is difficult to assess because there is actually quite a lot of rock art here. Most of it, however, consists of handprints, both positive and negative. These are attributed to the Anasazi, who lived south of the area after the Archaic. There are, however, a number of Anazazi dwellings in the Needles area, and two other rock art sites near this one exhibit similar handprints. One also features BCS anthropomorphs, and their state of preservation relative to that of the handprints suggests they are indeed much older.

Figure 5.22 - The yellow arrow shows the position of the anthropomorph behind the fallen rock; the inset is a closer view of the simple figure, solidly painted in red, and just 35 centimetres tall.

The rock art at this site is found in a very unique place – an alcove, situated right at the floor of the canyon, which is very perfectly rectangular in shape, and is two metres tall, just big enough to stand in (Figure 5.22). A few large rocks, fallen from the ceiling of the

alcove, occupy the floor on the left side. The largest seems to have fallen relatively recently, as the stone on the walls and ceiling of the alcove where the rock fell from are lighter in colour. It is on these lighter surfaces, however, that most of the handprints are found, so they were clearly painted after the rock fell. Interestingly, the small, simple BCS anthropomorph found at this site is situated *behind* this rock. I believe the anthropomorph was painted before the rock fell, in which case it would have been more visible at the time it was made.

Figure 5.23 - A view of the graben in which this site is located. Note the unusual landforms in the background. The site is found near the far end of the dirt road.

The alcove itself is situated in the *grabens*; these are not canyons, but rather large cracks in the sandstone bedrock which formed when underlying salt deposits pushed the land upwards. The cracks then filled in with soil, becoming long, wide lanes of grass. *Figure 5.23* shows a view of the particular graben which hosts this site; the photograph was

taken from high up the canyon wall. Note the unusual rock formations in the background which give this region – the Needles – its name. At the far end of the road running through the area is a small pull-out; this is where the site is located. It is the end of this graben, which is about three kilometres long.

Clearly, this place is unique. The grabens are unusual features – canyons without water – which would likely have attracted attention during Archaic times. The local rock formations are also unlike anything seen elsewhere in the study area. Finally, the small and uniquely-shaped alcove, right at the floor of the wide, grassy graben, seems a perfect place for rock art, though the alcove may not have been rectangular when the small anthropomorph was painted. Regardless of the shape, the alcove is like a small shelter at one end of this long open tract; a shelter which has housed a small painted anthropomorphic spirit for thousands of years. Later, Anasazi people visited the same site, and touched the stone with painted hands, leaving a lasting trace of their desire to contact these powerful surfaces.

This site is in the first and smallest of several similar grabens extending westwards towards the Colorado River. This one, however, is the only one which affords a view of the stone needles. I suggest this land was singled-out by Archaic peoples for its unique appearance. It is so very different from the land elsewhere in the study area that it probably received special attention, and was given special significance. During my fieldwork I was surprised not to find more rock art here, though almost a year later I learned that there are in fact a number of other BCS rock art sites in this region – I am now curious to know what they look like.

Needles 2 (502-1)

The second Needles site is located above a wet canyon, in a unique place. Accessing the site from the canyon involves climbing the sloping canyon wall to an outcrop of rock about 40 metres above the stream. The rock surface is flat and smooth, and is sheltered by a large overhang – again, these are elements which provide an ideal surface for the production of rock art. Adjacent to this face is a hole in the rock which one can walk

through (Figure 5.24). The rock outcrop is on a hill which is actually the middle of a broken meander in the river; looking through the hole in the rock provides a view of the path the creek once took.

The anthropomorph here is perhaps 75 centimetres tall, though I could not measure it because it is located about four metres up the rock face, far out of reach. Because of its high position, however, it is visible from the canyon floor below. It is centred within the light coloured face. Formally, the figure is fairly standard. The anthropomorph has a wide torso, with proportions like many other figures in the Needles area. It was painted with fingers, which created a vertical striated pattern in the figure. Antennae sprout from its head.

Figure 5.24 - The anthropomorph can be seen in the centre of the light face to the left of the gap in the rock. The inset shows a closer view of the figure. Note the green leaves, a sign of the creek below.

The ground below the figure is fairly flat, and to the right, beneath the gap in the rock, is a very large and sheltered area, free of vegetation and dotted with a few small rocks. This passage through the stone, adjacent to a rock face well-suited to supporting rock art, makes this place special. The anthropomorph sits alone, as if marking the place as sacred, and was painted high on the rock so that it may be seen from below, and draw those passing through the canyon up away from the stream and out of the tangle of vegetation to this well-defined and unique place. The image does not have a strong corpothetic effect on the visitor – it is small and far overhead. The place here is most important, and the painted figure seems to be an addendum, a way of calling attention to the place, and bringing people to it. Though it is more than a sign or marker: this special place, which marks an unconformity in the landscape, may have been a spot where the spirit realm was accessed, in which case the image would illustrate the beings which lived there.

Moab (406-1)

The lone anthropomorph in the Moab area is the largest of the six discussed here. It is located in a canyon with eight other BCS rock art sites – the same canyon, in fact, that houses the Green Snake site explored earlier in this chapter. The canyon is special because of its location and its propensity to flood, but the place where this anthropomorph is found, unlike the places discussed so far in this study, is rather unremarkable. The artist, however, used the physicality of the place to create a unique sort of engagement with the anthropomorph.

Approaching this site, the figure can easily be seen from the canyon floor, as it stands nearly two metres tall. Climbing the rocky slope towards the panel, it becomes apparent that the figure can only be approached by accessing the ledge below it some six metres to the left of the figure, then walking along the ledge towards it (Figure 3.25). One can find a place on the rocks below this ledge from which to view the anthropomorph, but standing on the ledge and looking up at the figure, just a few centimetres from the rock face, is a far more intimate and meaningful encounter. This is the only lone anthropomorph which is human-sized, and is one of the best examples in this tradition of this sort of close, bodily encounter with the rock art.

Figure 5.25 - The white rectangle shows the position of this anthropomorph, and the yellow line shows the approach. The figure, 2 metres tall, is shown in the inset.

While the place does not stand out like those of other single-anthropomorph sites, the placement of the anthropomorph above a narrow ledge restricts the manner in which it is viewed. Close engagement with the figure requires one to approach from the left, and walk towards it, viewing it obliquely, before standing directly in front of the figure, looking up at its head, as it looks out over the canyon below.

These five sites have just one thing in common – they house a single anthropomorphic figure, which stands alone in the place chosen by the artist. Two anthropomorphs were found in a habitable alcove or cave. If these were produced while the place was in use as a living area, perhaps they offered protection to the residents, or worked to maintain social contact with the being they embody. Alternatively, these places were perhaps not used for habitation until after the figures were made, in which case the images would have been made in places which were probably sacred.

Two of the figures are in places which are unique, and stand out in some way. One is in an alcove situated at the end of a canyon with no stream bed. The other stands adjacent to a hole which passes through the rock, high above a wet canyon. Both the canyons and the places around the rock art at these sites are special in some way. The anthropomorphs at these sites augment what were probably sacred places, and may have served to illustrate the beings that dwelled in them.

The final site stands out because the artist chose a place and a subject which restrict the visitor's experience to either a distant relationship with the anthropomorph, or a close and very intimate encounter with the same. A visitor to the site either kept at a safe distance, or approached the figure, engaging with it directly. This choice is difficult to put into context without more knowledge of the worldview of the Archaic people, though intimate engagement with the anthropomorph at this site was probably an act restricted to certain people who had enough knowledge of the sacred realm, and who had a good enough relationship with the spirit which dwelt in the image, to approach it so closely.

Sites similar to these are few. One of the other two sites with single anthropomorphs is very much like the Needles figure next to the stone arch. The other lone anthropomorph site is more like the last site discussed: it is a larger figure in a place where the visitor can engage with it directly. One final site actually has two motifs at it – an anthropomorph and a dog – and is the only site recorded with only two motifs (Figure 5.26). It stands in the back of an absolutely enormous alcove, which has no signs of cultural fill. The figures are placed on a small, flat face, high up on the rear wall of the alcove, such that one must climb the rocky slope at the back, and look up to see the images far overhead. The anthropomorph is a metre and a half tall, but is placed about three metres above sandy platform below the images. This site offers a unique combination of a simple composition of images which are easily viewed, and a unique place in the landscape.

Figure 5.26 - The image on the left shows the position of this art in the alcove; on the right, an anthropomorph and a dog can be seen painted on a slab above a flat sandy spot in the back of the alcove.

High Arch Site (420-2)

This next case study explores a small and interesting site in the San Raphael Reef. Here, just four motifs were placed within an arc-framed area which sits above a pair of ledges at the top of a long, steep talus slope. Such natural frames are not common in the study area, and it is an interesting coincidence that this one, situated about 30 metres above the canyon floor, is accessible.

Accessing the site, however, is not easy. The slope leading up to it is steep and comprised of loose dirt and rock. The climb is more of a scramble, on both hands and feet, slipping the whole way. Once at the top, the slope flattens out to form a small area, where just one or two people can stand, looking up at the images.

Above the top of this slope are two ledges (Figure 5.27). The lower ledge is wide and comfortable to stand on. The higher ledge, just accessible via a short climb, is somewhat narrower, but is not dangerous. A good view of the art is offered from the lower ledge,

thought it is seen far overhead; from the upper ledge, the images are just in front of the visitor's face.

The art consists of two groups of two images, spaced a few metres apart (Figure 5.28). On the left, an anthropomorph about 60 centimetres tall is prominent. Its torso has been incised with wavy lines sometime after it was painted. Unusual appendages sprout from its head in two directions, rendering it somewhat bird-like. Its legs terminate in inverted T-shaped feet. To the right of this figure is a plain red line.

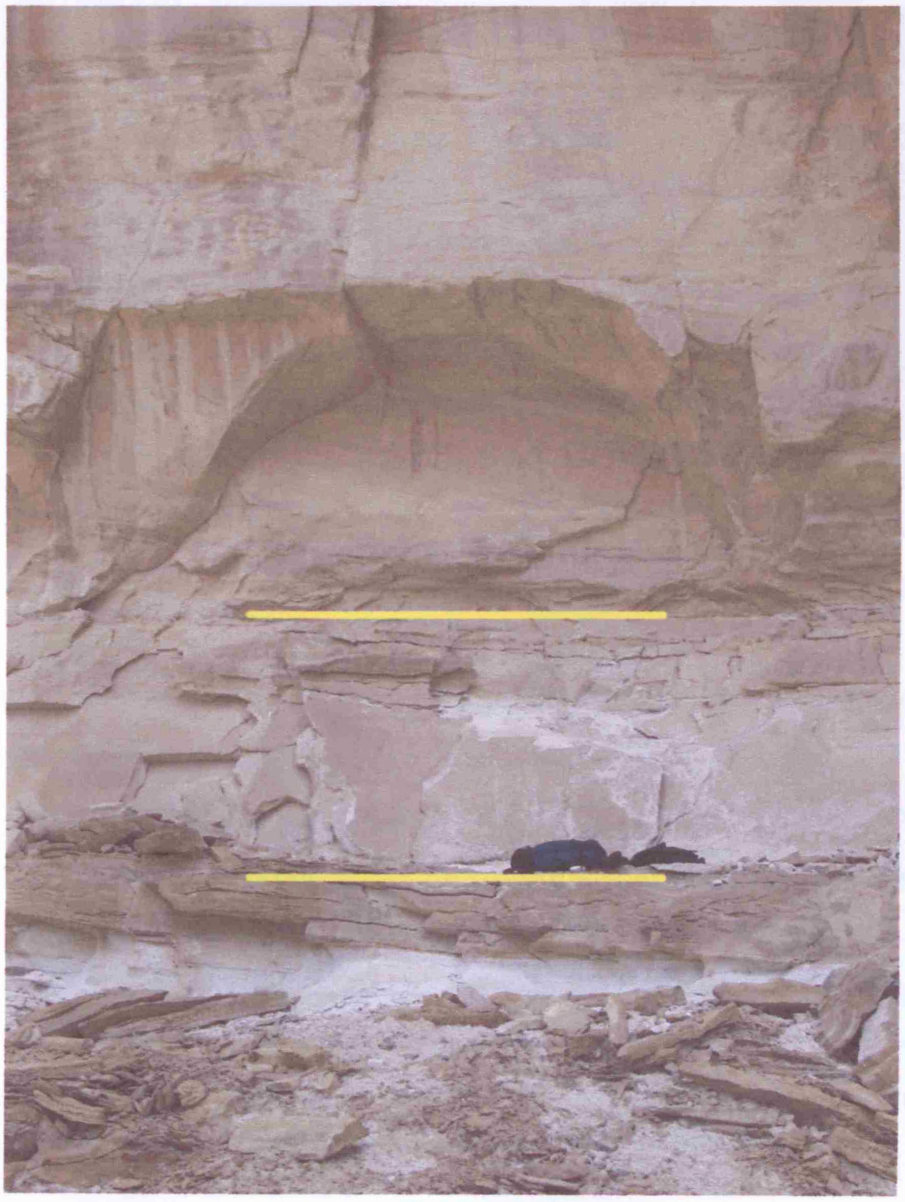

Figure 5.27 - Below the arc-shaped depression in the cliff which frames the rock art, two ledges, highlighted in yellow, offer different views of the rock art.

The other set of images, to the right of the first group, is a similar pair of figures, consisting of an anthropomorph and what is now just a smudge of pigment. The anthropomorph is similar to the first, with incised lines in the torso, and a head with long appendages. This figure is half the size of the other anthropomorph.

Figure 5.28 - The two groups of images found at this panel, spaced a few metres apart.

The symmetry in the composition of images at this site is interesting. Two anthropomorphs, very similar but not identical, were placed on either side of the arc-shaped depression, and are both accompanied by a simple and unidentified motif. Interestingly, if a line were drawn down the centre of the depression, between the two anthropomorphs, it would split the talus slope in two, then, moving across the canyon floor, would mark the point of a sharp transition in the landscape of the canyon. *Figure 5.29* shows the views in either direction from the rock art site. Looking to the left, the canyon floor is flat and rolling, but to the right, the convoluted forms of rock look like an entirely different place.

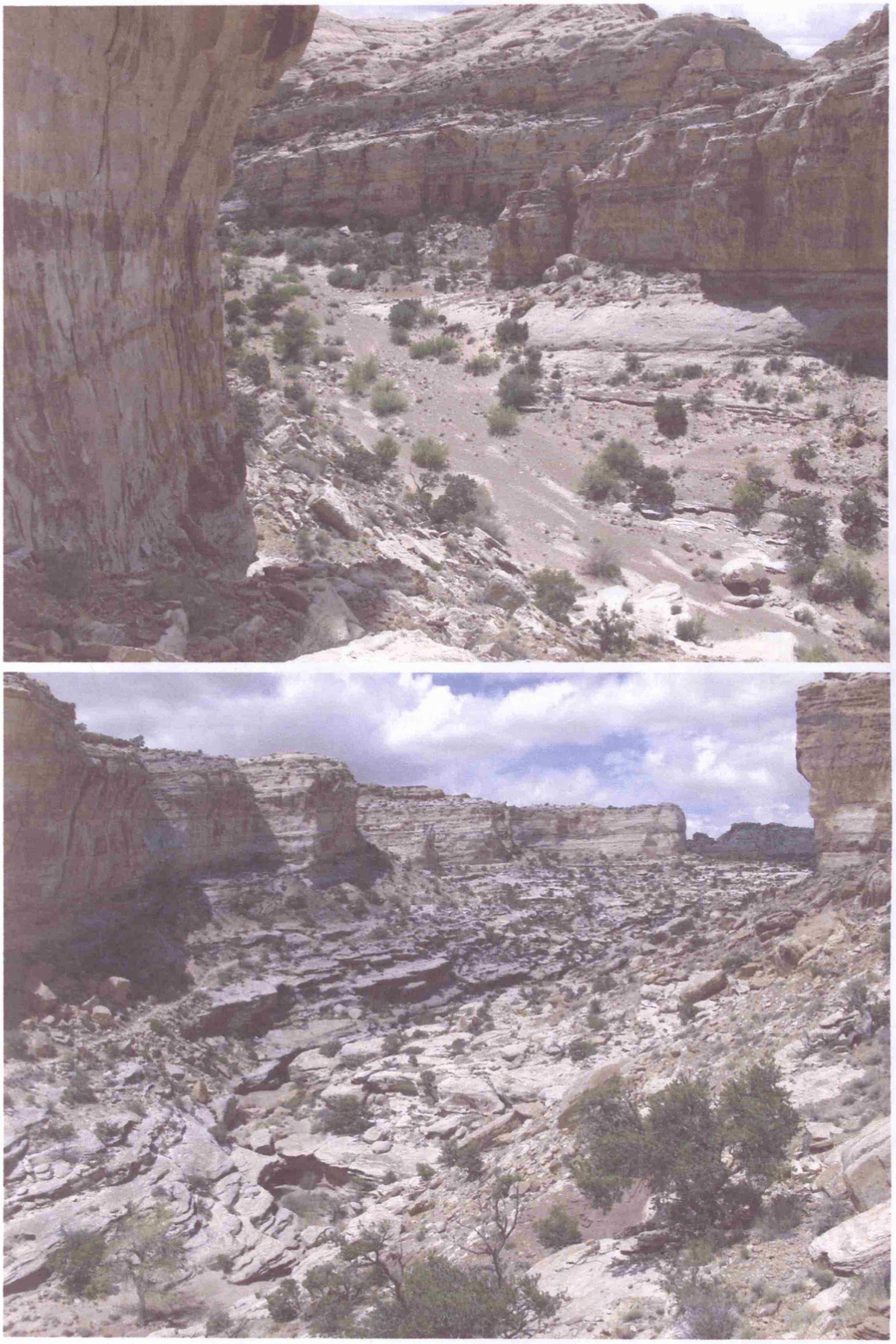

Figure 5.29 - The top image is the view from the site looking left; the bottom image is looking right.

The arc-shaped depression which frames the rock art exists directly above this strong transition in the landscape. The depression is accessible, and rests above a pair of ledges, the higher of which allows one to stand comfortably within the depression. These factors together explain why the art is here, and why the composition of the panel is symmetrical. This transitional place in the landscape was already accompanied by a special place high above the canyon floor; it was up to the artist to climb to this place, and to create a panel of equally symmetrical images. The physicality of the site allows for only a handful of visitors at once, and only a single person can stand comfortably on the highest ledge, just in front of the art. This is a small and intimate site with a distinct sense of place, and it is not surprising that there is rock art here.

The marking of a transition in the landscape is not found at any other sites recorded. The arc-shaped depression, however, is seen elsewhere. The first Needles site explored in the previous section consisted of a single anthropomorph painted beneath a similarly-shaped depression at the rear of an alcove. At the Great Gallery, explored later, the focus of the panel is a grouping of figures below such an arc. These sorts of places, it seems, were used for the production of rock art whenever possible. These shapes parallel the red and yellow arcs above the large anthropomorph at the Yellow Comet site; similar forms are painted over anthropomorphs elsewhere. These frame the figures within their confines, and visually (perhaps even physically) contain them. They are houses for the spirits that dwell in them.

Horseshoe Canyon

While Horseshoe Canyon and its tributaries are home to at least 20 BCS rock art sites, just four are marked on maps and made available to the public. These are found within a detached sub-unit of Canyonlands National Park, established solely to protect these rock art sites. All four are discussed here.

The modern trail into Horseshoe canyon starts near the top-right corner of the map in *Figure 5.30*. This trail is actually an old road blasted into the rock in 1927 (Kelsey 1992). The road once crossed the canyon, and provided the first easy access across what was

formerly known as *Barrier Canyon*; today, it is closed to vehicle travel. This is not, therefore, the route Archaic peoples would have taken, but the other rock art sites in this area, as well as several habitable alcoves including the important Cowboy Cave, are found upstream, so the Great Gallery was probably accessed from the same directions as tourists move in today.

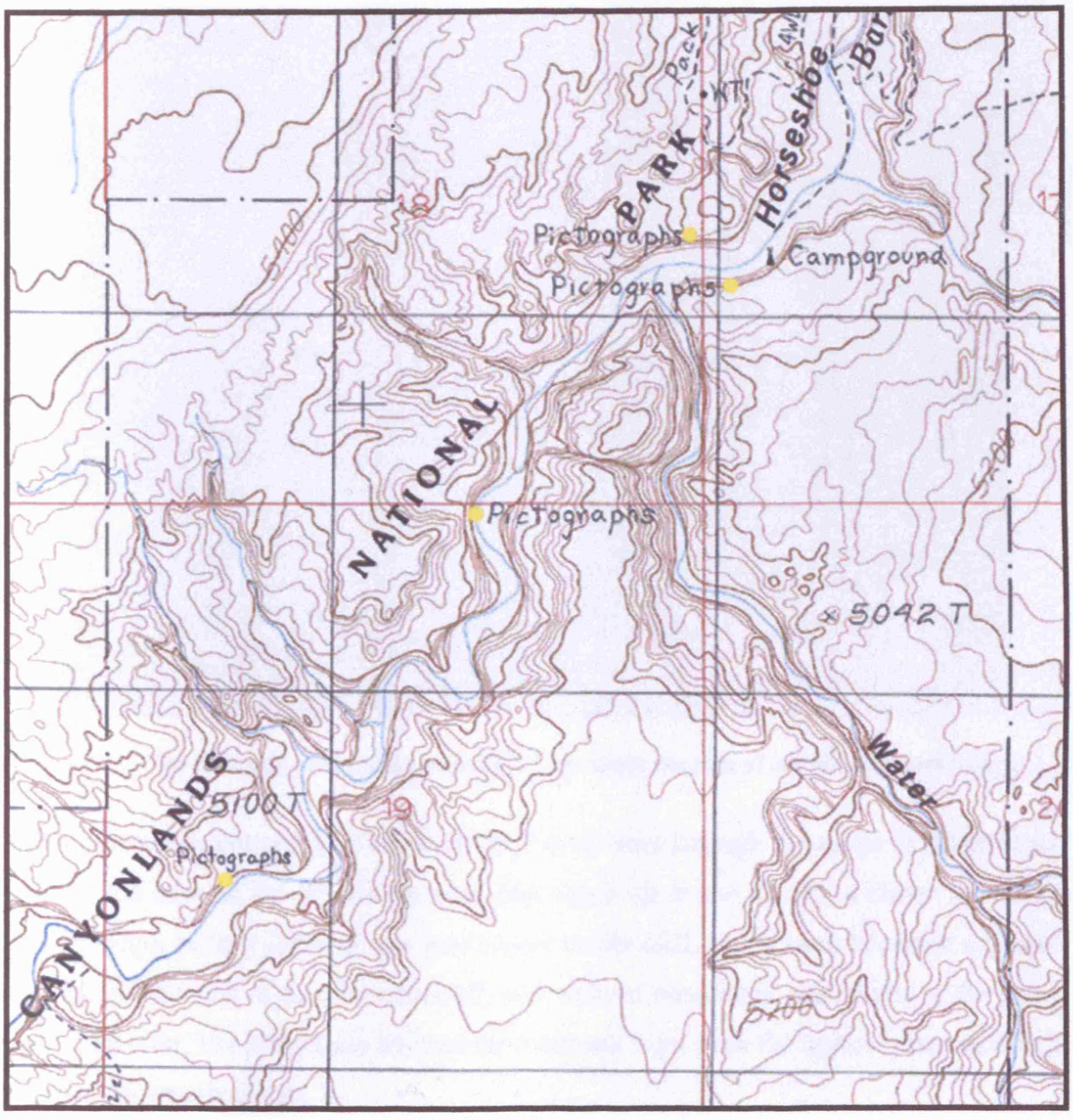

Figure 5.30 - The four publicly-accessible sites are marked here in yellow. This map is just under three kilometres wide.

After entering the canyon and walking a few hundred metres through the loose sand which makes up much of the bottom of Horseshoe Canyon, the first site encountered is the High Site (616-1). It is on the southern wall of the canyon, and is marked by the right-most yellow dot on the map above. This is the site many visitors miss, for although it is signposted, its location far up the cliff is surprising (Figure 5.31).

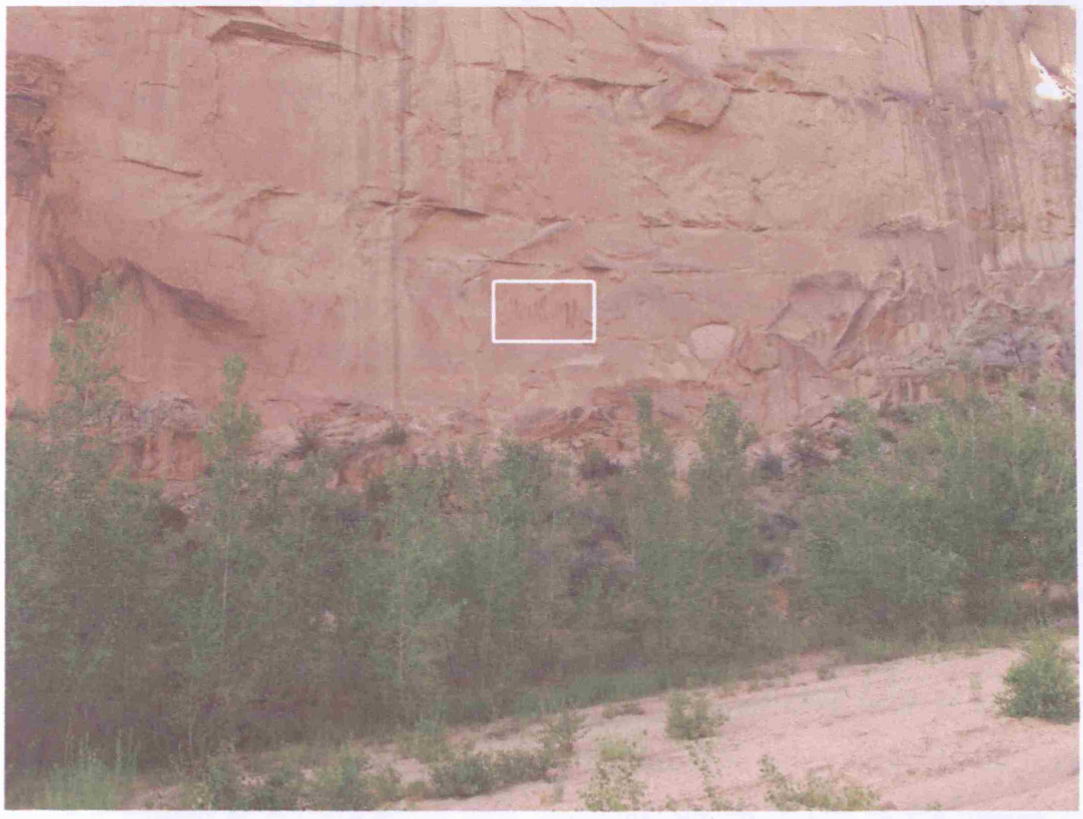

Figure 5.31 - The rectangle outlines the High Panel, far above the tops of cottonwood trees below.

When this site is noticed, one's first instinct is to cross through the grove of cottonwood trees at the edge of the dry stream bed, and climb up to the site for a closer look. The images begin to take form as one gets closer to the cliff, but it soon becomes apparent that the site cannot, in fact, be accessed, and without binoculars, the details in the panel cannot be seen. The images are painted far overhead from even the highest place to which a person can easily climb.

The panel consists of at least 19 anthropomorphs, and nearly as many motifs which are faded or otherwise obscure (Figure 5.32). Most anthropomorphs are plain in form, though

a few have patterned torsos, and one sports wings. A rain cloud motif is also present. The panel was produced during several episodes, judged by the different shades of reds used, and by the variable state of preservation of the motifs.

Figure 5.32 - A closer view of the High Site.

The physicality of the site, besides the high position of the panel, does not stand out in any way. The images were probably placed here because the morphology of the cliff allows one to climb part of the way up to the images – the art was put up in this high location simply because it was possible. Many BCS rock art sites seem to be placed in high locations, often as high as possible within the particular place where the art is found. Perhaps this pattern of placing art in high locations, which results in the images being difficult or even impossible to reach, is a metaphor. This site, although the motifs are quite standard in their form and similar motifs are present in many other sites, may have represented to the average Archaic person the inaccessibility of the spirit world. If BCS rock art in fact represents (and embodies) the spirit world, the producers of the art must have been knowledgeable about it. Those who knew how and what to paint clearly made it to this spot; they cast a reflection of their understanding of an invisible reality onto the cliff. Subsequent visitors to this site, perhaps on their way to the Great Gallery, were reminded of their inability to fully access this world, and of the role the producers of the rock art in describing, interpreting, and reflecting that world on behalf of others.

Moving down the canyon a short distance, a tall but shallow alcove comes into view – here is found Horseshoe Shelter (616-2). The floor of the alcove is just above the canyon floor, so one can walk directly to the rock art. This site has been excavated, and revealed a non-ceramic (presumably Archaic) layer at the bottom (Gunnerson 1969), though most of the fill was Formative. Along the rear wall of this alcove, concentrated in a white band in the stone several metres overhead, are painted nearly 30 anthropomorphs and several other forms (Figure 5.33). All images were done in mud of various earthen tones, applied to the rock with fingers. No painted images are found at this site.

Figure 5.33 - A large portion of the Horseshoe Alcove Panel.

While the form of the anthropomorphs at this site resemble many BCS figures, they seem more like close approximations of the style, and lack the detail present in many sites. The forms are hasty, and the mud pigments suggest a lack of preparation. It seems as if they were made by people who copied the BCS style of painting, without actually knowing the significance behind the images.

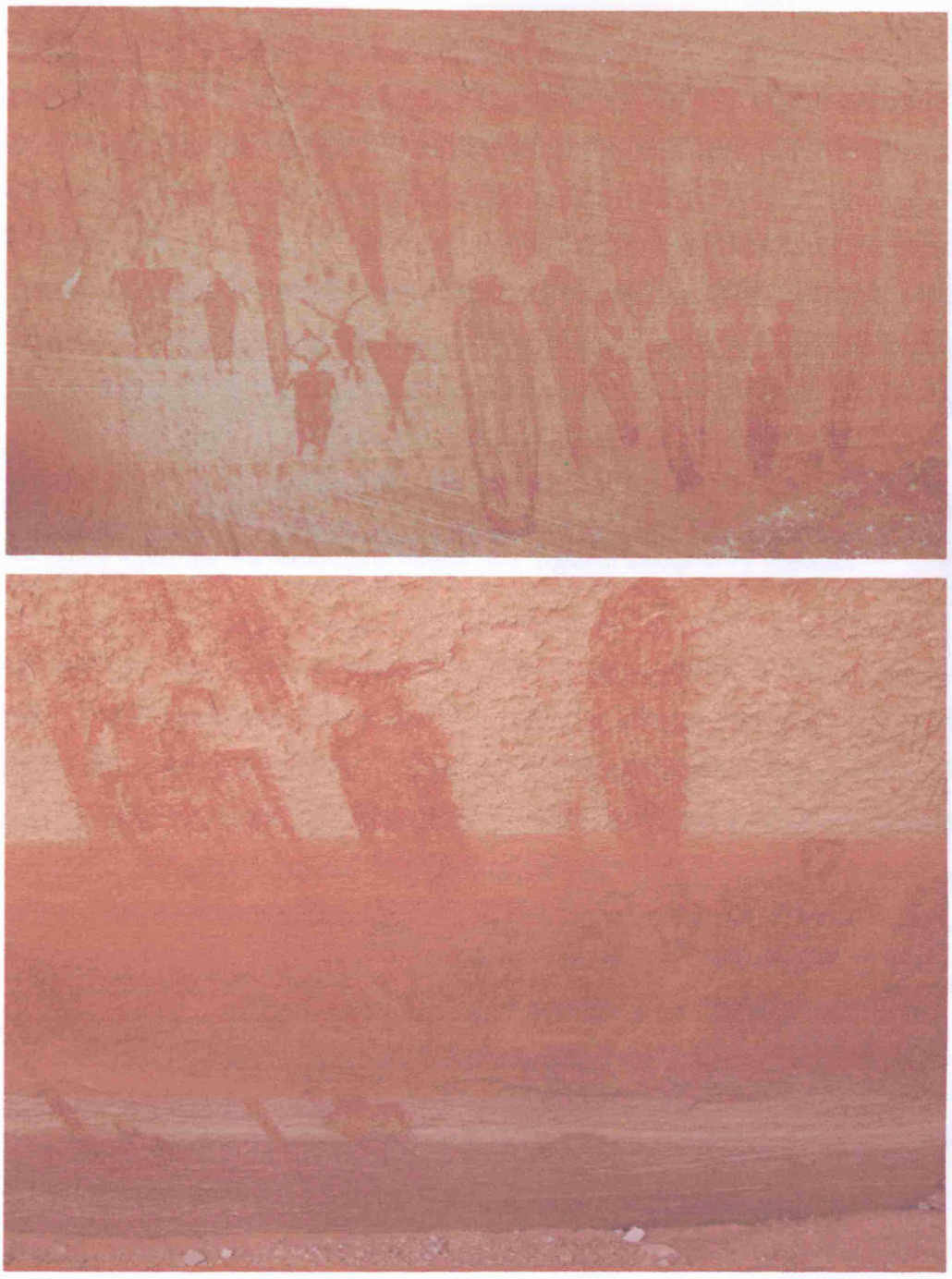

Figure 5.34 - Two panels of mud glyphs from the Alcove Site.

The next site (616-4) is very similar in these respects. Inside an enormous alcove, measuring over 100 metres across, are two more panels of figures made of mud and applied with fingers. Many of these are even more hasty than those in the previous site (Figure 5.34). The two panels at the Alcove site are almost entirely anthropomorphs, perhaps 40 in total, of the simple variety comprised of just a head and torso. A few have

limbs or head appendages. The anthropomorphs are BCS-like, but the hallmarks of the tradition – careful composition, fine details, attendant zoomorphs, etc. – all of these are absent. The images in this and the previous site are certainly done in the Barrier Canyon *Style*, but may not be of Archaic age.

The kinaesthetic effects offered by these two sites very greatly. In the first, the images are small, and are painted within a light band of pigment several metres above the floor of the alcove. The figures are physically inaccessible, and are visually bound in place by the colouring of the rock face (Figure 5.33). The linear arrangement of the images in this band effectively sets them apart from the rest of the rock face, and their high placement sets them apart from the viewer. As a result, the figures seem very remote.

The second site is very much in contrast to this, as the images are large, and are located just above a place where the visitor can stand. The colour of mud used in making these figures does not create much contrast between the images and the rock (Figure 5.34). The images blend in to the surface, as though they are very much a part of the rock. They are very accessible physically, and may be engaged with as bodies, though the ambiguity between image and rock, which makes the images somewhat difficult to see, blurs the figure-ground relationship here, so engagement with the images is not far removed from engagement with the rock.

These two middle sites are unusual in the BCS tradition, as well as within the context of the other Horseshoe Canyon sites. The resources in and around this canyon – water and shelter within, and lithic and food resources above – as well as its function as a path between the Green River and the Maze area, have drawn people here for centuries. Most of the artefacts found in the canyon, however, come from later cultures. These two sites are probably either late manifestations of the style as it transitioned into other traditions, or are approximations of the style by later peoples.

Finally, we come to the Great Gallery (617-1) – a site that is without doubt of Archaic age. Looking again at the map in *Figure 5.30*, we see that this site (the bottom-most

yellow dot) is located just after a great bend in the canyon. Coming around this corner, the site is immediately visible. The panel is situated on a south-east facing section of the canyon wall, along the outside of another large curve in the corridor. The cliff is about 25 metres tall here, and slightly undercut. The sedimentary origin of the rock which makes up the canyon walls is clearly evidenced by horizontal variations in the colour and texture of the stone, which result in a rather rough and uneven surface. But one stretch of the cliff is fairly smooth and uniform – it is here the rock art was placed. This smooth face extends about 40 metres along the wall, and is about six metres tall. Above this band, the rock is rough; below it, a two to three metre wide ledge extends the length of the face. From the ledge, a slight drop brings one to the sandy canyon floor. Finally, situated at the far left end of this band of smooth stone is an inset arch, perhaps 30 centimetres deep, within which the stone is several shades lighter than the rest. This natural frame forms the focal point of the whole site.

Figure 5.35 - The Great Gallery. Many of these figures are over two metres tall.

The site consists of nearly 70 anthropomorphs and several dozen other motifs (Figure 5.35). Most of the anthropomorphs are over a metre tall, and many stand over two metres. Some figures are monochromatic and solidly painted, though many were executed in

multiple colours, and exhibit fine detailing. Body patterning is very common at this site, present in more than half of all the anthropomorphs. Nonetheless, the body-plan of the figures is predominantly the simple head-torso type, lacking any appendages. This site is clearly the work of many individuals working over a long period of time.

This site has been used as an example for many discussions throughout this work, and much has already been said about it. It is a public site, very accessible and visible. It is thematically coherent, and very ordered in terms of composition. The images represent a great deal of time and effort, and were made by skilled hands. It was almost certainly a place of seasonal aggregation, and saw many ceremonies performed at its base over the years.

The Great Gallery does, however, have a hidden side which has not yet been discussed in depth. The rest of the discussion will focus there. To the left of the large arc-shaped feature is a pile of rocks, taller than the main panel. Above and behind these rocks, hidden from view to visitors on the canyon floor, is a flat sandy spot and a rock face exhibiting a very different kind of rock art than the large and detailed figures in the main panel. Here, dozens of intersecting lines scratched into the rock remind one very much of some of the images at the Yellow Comet site discussed above. Many of these, however, are not anthropomorphs, but schematic representations of plants.

Also found here is a small composition of three anthropomorphs and a dog (Figure 5.36). The figures are small, perhaps 25 centimetres tall, and were not painted on the rock, but rather drawn with a piece of dry pigment. They are located at eye-level, and are easy to view. All three anthropomorphs have minute attendant forms, either birds or ungulates, about their shoulders. Two figures have patterned torsos, and all have double antennae on their heads. The dog is similarly drawn, and conforms to the ways in which dogs are depicted elsewhere in the tradition. In terms of form, subject, and composition, these figures are very typical of the style.

Figure 5.36 - This small composition of figures are in a hidden area at the Great Gallery.

The similarity between the motifs suggests they were drawn by the same person in a single episode. This small group of figures was placed in a hidden area just adjacent to the largest and possibly most important site in the whole study area. The content of the panel does not represent anything new or contrary to the style as a whole, so the person who climbed up here and made these images was conforming to the style, though not to the conventions of the panel below. Sometime after these images were made, the heads of the anthropomorphs were pecked away, as were the head and feet of the dog. Someone did not agree with this message, or the way it was presented, or perhaps where it was placed. It is an interesting addition to the Great Gallery, though it remains somewhat enigmatic.

These four sites in Horseshoe Canyon are in close physical proximity, though are quite different from one another. The other sites in the area conform to other conventions, and each is different from the next. The canyon was used for many years by many people, and a number of different types of site were produced here. The art of Horseshoe Canyon, like the rest of the study area, is stylistically similar, but formally varied. The general message, despite the variation, was probably the same.

These five case studies have illustrated the ideas presented in Parts III and IV. If space permitted, all sites documented for the study could be explored in this depth, though such an exercise is not necessary. Most sites have been discussed to some degree, and while each site has its own nuances, all express similar themes. There is great unity across this style, despite regional variations of form and the occasional site-specific motif. The implications of this are explored in the concluding chapter.

Part 6 - Conclusion

The primary objective of this work has been to explore an expanded set of methods and theories from which to study rock art. The project methodology was structured around the empirical approach of gathering and analyzing data, to which a number of other facets were added; primarily, art as agency, metaphor, and phenomenology. These methods resulted in several different data sets, including photographs, maps, the database built from site forms, a field journal, and my own memories of visits to the rock art sites. Each data set proved invaluable when writing this dissertation, but some were more helpful than others.

When I began to explore the data I had produced in the field, I expected that long deliberation, cross-referencing, and creative reasoning would, eventually, reveal answers. I expected that my database and photographs would be my most important resource, and that the information in them would eventually congeal into answers to my many questions about this rock art. It turned out that this was not the case. Some interesting facts came from the database; for example, it helped me quickly and easily provide motif counts and percentages, and to explore how different motifs and elements overlapped. While this information has been interesting, these numbers are abstract, and are not in-line with a 'lived' understanding of this rock art, which can only come from spending time in the land and at the rock art sites.

As I reach the end of this project, I would consider my most important resource to have been my memories of being in and moving about the land, the canyons, and the rock art sites. The field journal, database, photographs, and maps were useful primarily as memory aids which, when I looked over them, brought me back to the desert. In one respect, this has been a great surprise to me, as it is counter to my expectations; however, as I think more about the implications of this, I realize it is in fact perfectly in line with the spirit of this work.

When I set out for the field, I was nestled comfortably within a framework of theory and methods. These came from researchers who emphasize the importance of process, dialectical relations, dialogue, experience, and participation. I understood this framework on an academic level, and it structured my explorations of the land and the rock art by heightening my awareness of my own being-in-the-world. This strong existential focus was foreign to me, but it allowed me to see and experience the rock art in a different manner than had I visited the sites with a mind set on gathering only empirical data.

In becoming more aware (though certainly not fully aware) of the nuances of the land, and of the ways in which those nuances have been incorporated into the rock art, both through the imagery and through the artist's conscious manipulation of place, I have come to realize that the rock art also has a strong existential focus. A major theme I have found throughout the tradition is a statement about the relationships between people and the rest of the world. As I considered my own being-in-the-world at the rock art sites, I came to realize that the rock art is in part an exploration of the artist's experiences of being-in-the-world.

I have in effect come full circle with this project. My understanding of the theory and methods I set out to explore has, I believe, moved from an academic understanding to a lived understanding. The project has provided insight not only into the rock art, but into the mechanics of the methods I employed in thinking and experiencing the rock art; this is one topic explored in this conclusion. My thesis, I believe, is therefore confirmed, and out of it come a number of suggestions of where to go from here, and how. This involves an expansion of the current paradigms governing rock art research. This chapter will therefore be structured by the words of other writers and researchers, from various disciplines, who each provide a seed for discussing the implications of this study.

> *All perceptions of past events are from the point of view of the existential present. The viewer and what is viewed are inexorably bound to each other. The notion of 'objective' or detached history, in fact of any knowledge, especially in the historical and social sciences, is a misleading notion (Malik 1989, 51).*

This idea of replacing an objectivist paradigm with an experientialist one (Lakoff and Johnson 1980), and of prioritizing process and participation over form, has been a theme throughout this text. It structures the theories of metaphor, of the agency of art, and of the participatory nature of perception, which together acted as a foundation for this study. But this idea has also been working on another level. As Malik suggests in the passage above, the notion of an objective past is an illusion. The historian or archaeologist, by exploring the past, cannot help but participate in it. Malik goes on to suggest that this participation in fact changes what is being studied, and that the researcher who does not acknowledge his or her participation shirks from a responsibility to be self-reflexive.

If participation in the past by means of studying it necessarily changes the past, then the nature of one's participation will affect the nature of that change. To illustrate, consider the function of rock art. No one will argue that it no longer functions as the artists intended. It still functions nonetheless. For a tourist, the rock art teases, providing a glimpse of mystery for him or her to ponder for a while, before returning to the present. For the government archaeologist, it is a resource which must be managed and protected by restricting access to it, and removing it from the public eye if necessary. For this study, the rock art provided a vehicle through which I attempted to recreate past experiences.

The answers, therefore, depend not just on the questions, but also upon how one goes about trying to answer the questions. This suggests we should be aware not only of our research paradigms and the implications they have on our studies, but we must also remain cognizant of the fundamental philosophical nature of our conceptual system, and of how that system influences the ways in which we contend with our various life-worlds.

In studying the experiential nature of metaphor and perception, I became aware of the corporeal and spatial origins of my system of language and thought. As Lakoff and Johnson (1999) very successfully demonstrate, the nature of the interactions between our embodied selves and our environment strongly influences our understanding of the world. These interactions become the basis of metaphors, which in turn structure even the most fundamental concepts of time, space, causation, and knowledge. Lakoff and Johnson's justifications of these claims are complex, but ultimately boil down to the idea that human beings structure their understanding of the unknown *through* their experiences of the known. This process *is* metaphor.

By understanding this, and by acknowledging that the conceptual system of Archaic hunter-gatherers was radically different from my own, I was able to begin bridging the gap between the two. Through the process of exploring the various physical contexts in which BCS rock art sites were produced, and by considering the effects those contexts have on visitors to the sites, some patterns have been noted.

First, Archaic artists were concerned with the manner in which visitors accessed and moved about rock art sites. This is demonstrated by the frequency with which certain elements appear and reappear in this tradition. Ledges below the art, for example, are found at many sites. These restrict the visitor's movement, while at the same time provide a convenient place to stand while viewing the images. Places high up cliffs were often chosen, requiring the visitor to climb, often risking life and limb to experience the rock art intimately. These and other elements were sought by artists, who spent time looking for places with just the right collection of physical elements which would provide the specific viewing conditions they desired; these conditions would provide a context for the art they wished to produce.

By controlling how the rock art was experienced, the producers were able to control the consumption of the rock art, even in their absence. They could ensure everyone was able to experience a panel, or restrict access to a select few. They could make the approach to the site a non-event, or make it so difficult it becomes a trial. They could make sure their

sites were passed by travellers following natural routes through the land, or hide them away in unlikely places, thereby making a visit to them the goal of a dedicated journey.

The artists could make visitors look up at anthropomorphic figures so large they flow out of the person's field of vision, or make them move right up to the rock to see the delicately-painted feathers on the wings of a bird just a few centimetres wide. They could let the visitor stand still and see all the artist has to tell, or make a person move in a choreographed dance in order to take in all the images.

These elements all had meanings, which started with basic sensory-motor experiences, and perhaps ended with social or cosmological implications. The recognition of these experiences, of the fact that the artist had some control over them, and of the probability that they affected the visitor's understanding of the images, are important elements to bear in mind as the implications of this research are explored. They imply that certain conceptual elements in the Archaic life-world came out of simply being-in-the-land. These sensory-motor experiences were very much a part of the rock art, and they helped it to function in the way that it did.

This is made more clear when we consider the surfaces on which the rock art was placed. The majority of the rock art sites documented were placed on surfaces that are either in caves or alcoves, or are in places where it is clear that the exterior surface of the rock has fallen away, leaving the interior surface exposed – though perhaps 'interior' is not the right term to use. Within the Western conceptual tradition, 'interior' is conceived via a container metaphor – we live and work *inside* buildings, for example, and therefore equate interior with safety, comfort, protection, familiarity, and so forth. The interior of a rock is very different. Perceptually, that realm is inaccessible. It is the place which cannot be entered by standard means. We today have no conceptual framework for speaking of these kinds of interiors, for we think little of them; but in an animistic society, the goings-on inside rocks and beneath the soil were probably of great interest. I believe what lies beyond the surfaces of rocks and earth was, in Archaic society, the spirit world.

By placing rock art on these interior surfaces, archaic artists made available a specific kind of experience. The visitor was subsequently able to interact with the beings and things which existed beyond the rock by means of images placed on the inner-most boundary between this world and the other. This provided people with experiential access the spirit world, however limited and artificial. Abram (1996, 212), drawing from Heidegger and Merleau-Ponty, suggests that this under-the-ground realm, by virtue of the fact that it is inaccessible to the senses, makes itself felt within the sensuous presence of the open landscape. In other words, because the under-the-ground is perceptually inaccessible, its being (or perhaps its absence) is brought forward in one's consciousness of the landscape, and it becomes an object of intentionally to be contended with.

The modern Western visitor to rock art sites does not have this experience, because we usually imagine that inside a big rock, there is just more rock. But by recognizing our reaction, and by understanding the origins and workings of our conceptual system and how it structures our understanding, we may begin to consider what the reactions of past individuals may have been.

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> *It is curious to notice with what tenacity an Indian clings to a trail; a path which has been followed by his forefathers is sacred to him, and though in the constant and rapid erosion of the gulches and sides of the hills and mountains these trails have become very difficult yet he never abandons them when they can by any possibility be followed, even though a shorter and better road is very perceptible (Fowler and Fowler 1971, 39).*

This passage is taken from the manuscripts of John Wesley Powell on the Numic speaking tribes of Western North America. Powell was one of the first Europeans to pass through the study area in the late 1800s. The author is clearly speaking literally, but this passage provides a fine metaphor by which this discussion can continue. The idea of clinging to a path implies consistency of action, and although other paths, or other ways

of doing things, might be available, consistency is important because the path being followed is that of the forefathers; in other words, it is the way of cultural convention.

The continuity in form, composition, and place in BCS rock art is surprising, considering the tradition spans at least a thousand years, and quite probably more than that. Continuity in form does not necessarily imply continuity in function; however, the kind of continuity seen in this rock art is somewhat unique. The similarities found across the style are subtle. There are few 'copies of copies', at least not in terms of form; rather, there appears to be continuity in the fundamental themes underlying the rock art, while variability in form occurs more on the surface. Anthropomorphs obviously appear over and again, showing some regional contiguity but exhibiting just as much variability. Three animal categories – birds, snakes, and ungulates – are expressed across the tradition in terms of their relationships with the anthropomorphs. Panels are, for the most part, neat and orderly, with new elements added adjacent to older ones, in respect for what is already present. The same kinds of places were chosen across the study area for the production of this art. All of these are elements which define the Barrier Canyon *Style* of rock art.

The time span of this tradition is not known, but if we give only 1000 years from start to finish, and estimate the number of rock art sites at 250, that means one new site was produced every four years somewhere in the 17,000 km^2 study area. Rock art may have been produced more often than this, as sites like the Great Gallery exhibit the work of many individuals, presumably working in disparate episodes over a long period. The production of new sites, however, is significant because it implies knowledge of other sites; otherwise, no continuity would be present at all. Moreover, artists very probably understood the other sites, and made new ones within the same paradigm. This is not to say that elements of the worldview underlying the rock art never changed over the course of a thousand years, but judging from the solid state of the style across such a large area, it seems changes were small. The overall function of the rock art very probably remained the same.

By now, it is hopefully no debate that this rock art had a function. The images did things, and whatever they did, it seems to have worked for a long time. It was suggested a few pages ago that this rock art functioned in part by providing experiential access to the otherwise perceptually inaccessible spirit world. It has also been argued that the anthropomorphic images in this rock art were in fact spirits; the rock art therefore also provided social access to the inhabitants of the spirit world, at least for some people. Finally, by instantiating the communal ideology of Archaic people, which appears to have remained constant for a long period of time, and by expressing that ideology in physical form, the rock art provided people with an experiential conformation of their belief system, and therefore functioned to simultaneously express, confirm, and maintain that system.

At this point, it is important to suggest that the continuity apparent in this rock art site could not be present were it not for myth and ritual working simultaneously with the art. Whereas art represents a physical instantiation of a belief system, myth is the oral, while ritual is the performative. These latter elements have rarely been discussed to this point, but must have worked hand-in-hand with the rock art to do what it did in the context of Archaic society.

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> *"Meaning" in the arts only comes into existence when the mythology of a society dissipates and no longer supports the worldview of the artists (Highwater 1994, 26).*

Art, myth, and ritual are all responses to the questions of who we (humans) are, and what our place is in the world. The answers to these questions form the basis of our reality. These answers are usually expressed in metaphors, and have experiential correlates in the physical world. For a person native to a particular culture, these metaphors do not need to be interpreted or understood; rather, they are the fundamental principles of reality, and usually go unquestioned. In Archaic society, the artists who produced the rock art

operated within the same mythological and conceptual framework as their intended audience. Visitors to a site did not, therefore, understand the rock art in terms of semiotic meaning; instead, the images and other elements were recognized within their conceptual system. The rock art was experienced, and its significance was understood.

Rock art, during the Archaic, was a fact of life, experienced and understood just like any other phenomenon, within a framework of past experience, memory, and knowledge. As Highwater suggests in the passage above, it is only when rock art is removed from that framework, from its socio-mythological context, that it must be 'understood' in terms of 'meaning'. By analogy, the French take it for granted that they can read books in French. The words on the page are not considered in terms of their meaning, they just roll through the reader's head and are understood. Those of use who do not speak the language, however, must ask of every word 'what does this mean?' before the message in the text begins to take shape.

This argument serves to illustrate that during the Archaic, this rock art did not need to be translated, scrutinized, or studied. As sites were produced, they became a part of the landscape, blending in with other places with social and cosmological significance. Rock art was not a mystery; instead, it was a way of contending with mystery.

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> *The aboriginal gathering of information about the social and physical environment functioned in the organizational strategies necessary to cope with the characteristics of the environment in southeastern Utah (Hartley 1992, 1).*

Early in this dissertation, I painted a picture of the environment in which this rock art is found. It is a harsh land, low in water, containing food resources which, without proper knowledge, are difficult to identify as food. I also explained how the study area has been occupied almost continuously for the past 11,000 years. Clearly this environment is not

as uninhabitable as it appears to be. Some researchers, however, provide interpretations of the rock art of this environment based on what they imagine to be a strong need among the producers of the art to constantly share information regarding local ecology in order to survive. The passage above comes from one of these texts; Hartley believes rock art to be a store of ecological information, a tool to help people survive in the desert.

On this last point, I agree with Hartley. BCS rock art, I believe, was vital to the survival of Archaic hunter-gathers. I do not, however, share Hartley's belief that rock art was a signboard telling others of the value of the local area for resource procurement. The study area was not an easy place in which to live, but it is reasonable to assume that during the Archaic, the need for social and ritual communication was more pressing than utilitarian needs, as all signs in this rock art point to its ritualized context. The driving force behind the production of rock art was ideological, not economic.

This is not to rule out the role of the environment in BCS rock art. Local flora and fauna, for example, are depicted at many sites. The immediate environment – wet, dry, wooded, barren – may have had its role to play in the significance of the sites as well. Most importantly, some rock art sites appear to have dealt with environmental factors such as rain, lightning, flooding, water, and so forth. These natural phenomena, in a society whose worldview is animistic, would be agentive, or would be controlled by agentive forces. Perhaps the entities portrayed in this rock art are the agents in control of these forces, and rock art sites are places where Archaic people could engage with them regarding these matters.

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> *When man dwells, he is simultaneously located in space and exposed to a certain environmental character. The two psychological functions involved, may be called 'orientation' and 'identification'. To gain an existential foothold man has to be able to* orientate *himself; he has to know*

> where *he is. But he also has to* identify *himself with the environment, that is, he has to know* how *he is in a certain place (Norberg-Schulz 1979, 19).*

In Part II, the idea of *how* a person is in place was discussed in terms of being-towards-the-world. It was suggested that place exists only in relation to a subject's experience of it. The being-towards-the-world of an Archaic individual is far removed from the modern person living in today's world of surfaces and sound-bites, but having spent two months in the desert, hiking through the canyons to dozens of rock art sites with my water on my back, I came closer than many to an understanding of *how* a person is in the desert. By recalling my memories of visits to sites, and by thinking and writing them these past several years, this understanding has grown.

Being-towards-the-world in the desert of south-east Utah involves contending with a world of stubborn rock, temperamental water, and unpredictable food sources. It involves an openness to change and a flexibility in all patterns of life. The desert is a land of forces and elements beyond control, beyond prediction, and beyond explanation. The people of the Archaic knew this better than I, and they found ways to contend with these forces. By animating the world and giving it volition, the forces gained intentions. By establishing a social order and a set of rules by which life was to be lived, they provided a connection between themselves and the land: following rules had good effects and explained why food was sometimes plentiful and water frequent, while breaking the rules had negative consequences, and provided explanation for flood, famine, and so forth. This allowed for the forces of the desert environment to be understood in familiar terms – they were transformed into metaphors.

Through the rock art, communication with these forces was made possible. Moreover, the rock art communicated Archaic people's metaphorical understanding of the world to all members of their society. These metaphors of the agents responsible for rain, floods, snake bites, and other hazards of this land were depicted in the rock art. These were beings of supernatural origin, human-like but wholly other. Their relationships with the forces of nature and the world of plants, animals, and rock were expressed visually on

liminal surfaces in places of power. The ways in which these images were received was controlled by using the physicality of the land to create an experiential context within which these ideas were expressed. The rock art, however, did not work alone. Ritual mediation ensured that the proper message was expressed.

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> *...within any belief system ritual plays a vital role not only in expressing that belief system but also as a way of directly experiencing that system through emotive and somatic means (Dornan 2004, 29).*

Though there is little direct evidence of the nature of ritual activity at rock art sites, the context of the rock art has provided clues. Large sites like the Great Gallery provide room for an audience, and the ledge beneath rock art panels may have acted as a stage upon which people acted within the space modulated by the painted bodies on the rock behind them. Fires, found at many of these sites, would have cast shadows of the actors, and these shadows acted as temporary rock art images, which interacted with the anthropomorphic forms on the plane surface of the rock. The acoustic properties of some of these large sites suggest they were chosen to echo music or song through the canyons.

Large, public sites, where a visitor is a spectator, are balanced by more intimate sites. These exploited a wide range of places, from high perches to hidden nooks. The very act of travelling to these sites and accessing the decorated panels was in a sense part of the ritual of the rock art. Experiencing the art as it was placed on 'interior' surfaces provided Archaic people with a somatic means, as Dornan suggests above, of directly experiencing their belief system. The most prominent emotive factor in many of these smaller sites was probably fear, or at least a heightened sense of caution, as the sites were difficult and dangerous to access. This would have provided a sense of accomplishment once the site is reached, and would increase the efficacy of the message as the visitor relishes the hard-to-reach site.

Finally, the art and the ritual were both mediated in and through mythology. The images expressed the stories that explained the world, and the place of humans in the larger system. Rituals replayed these stories symbolically through performance, and via the kinaesthetic effects the art has on the viewer. In visiting rock art sites, the visitor symbolically enters the spirit world, and encounters the actors of their myths in a bodily fashion. The rock art therefore illustrates the fundamental reality construct of Archaic peoples, and at the same time provides a means by which it can be experientially verified.

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Before this discussion comes to a close, a few final issues need to be addressed. As was stated at the beginning of this concluding chapter, most of the inferences made about this rock art in recent paragraphs, and indeed throughout this entire thesis, have been drawn based upon evidence that is primarily phenomenological. This means that the actual content of the sites – painted images on rock faces – has not contributed much in the way of evidence. The art has certainly been considered in terms of the conclusions that have been drawn, but it has not stood by itself to testify to the hypothesis offered herein. Most will recognise this as a radical departure from the sorts of analysis that normally take place in rock art research. The rock art itself has been decentralised, and other forms of evidence and modes of interpretation have been utilised to understand the function of the sites, with less regard for the images than many analyses grant.

It may be suggested that the reason for this unorthodox analysis is that the motif inventory (Appendix D), which is the primary data set speaking on behalf of the art, does not appear to support the rest of the conclusions drawn herein, and therefore the data concerning the rock art have therefore been ignored. The phenomenological data suggest strong site differentiation and categorisation based upon such elements as visibility, ease of access, mode of viewing, and so forth. The data in the motif inventory, however, do not straightforwardly support this, as they suggest a fairly uniform motif distribution, offering few hints regarding site function or other differentiation suggested by the phenomenological evidence. This might be considered problematical.

There are three possible reasons for this discrepancy. First and foremost, the conclusions drawn herein based upon the phenomenological data could be wrong, and need to be reassessed. This possibility is difficult to entertain since this entire thesis has been arguing otherwise; it will therefore be discarded in favour of other possibilities. Second, the motif inventory could be biased, and might not represent the true distribution of motifs in this rock art tradition. This could be due to a sampling error, or to errors in recording and categorising motifs. This is certainly possible, though it is difficult to assess without further fieldwork, which at this juncture is not practical.

If the problem rests neither with the conclusions drawn nor with the site content data, it must instead rest with the relationship it has been have assumed these data must conform to. Experience with and knowledge of other rock art traditions will lead some readers to remember that different kinds of images are often found at sites with different functions. Perhaps this is not the case with BCS rock art. To address this, it will obviously be beneficial to take a closer look at the rock art, and at the distribution of motifs, to see if there are any clues to site differentiation that have not been brought to light. It will also be helpful to compare what we know about the rock art with related ethnographic information. Reviewing what has been said about the Southern Paiutes will be useful here, as will a brief comparison of BCS rock art with the rock art of the Anasazi, a sedentary culture living in a similar environment, though much later than the Archaic.

If the site differentiation implied by the phenomenological data does not appear to be supported by the motif inventory, perhaps a thought experiment whereby sites are differentiated based solely upon the motif inventory will help provide clues to this conundrum. If we strive to differentiate the sites using only the motif inventory, we must take one of two paths – we either work based upon motif category, or upon motif count. Let us begin with the former.. The relative frequencies of different types of motifs vary greatly from site to site. Looking at the motif inventory in Appendix D, it seems that while some sites are very clearly dominated by anthropomorphs (605-1), others exhibit far more birds than any other motif (403-1, 412-2. 414-1), while others are dominated by ungulates (411-1, 607-1). Among these are sites at which the above motifs are found in

large numbers, though in fewer numbers than anthropomorphs. Perhaps these figures – birds and ungulates – can provide clues to site differentiation.

Figure 6.1 maps these sites in the study area. They are fairly evenly distributed, but appear to be restricted to the northern half of the study area, so within the closed system of the motif inventory and this map, these sites could imply differentiation between local groups, where identity is expressed through the rock art. There are, however, problems with this idea. First, while birds or ungulates might dominate a panel in number, they are never visually or spatially dominant. The two most extreme cases of these motifs outnumbering anthropomorphs are pictured elsewhere in this thesis. Site 403-1 has, according to the motif inventory, 16 birds but only 3 anthropomorphs. Parts of this panel can be seen in *Figures 4.8* and *4.45*. These two images show two of the three anthropomorphs, and 11 of the 16 birds found at this site. It is difficult in these small images to find all 11 birds that are supposed to be present, but they are indeed there – they are just quite small. Similarly, the site most dominated by ungulates, 411-1, can be see in *Figure 4.11*. While this panel indeed sports a large concentration of ungulates, the large polypmorph on the left and the two other forms on the right clearly dominate the panel visually. At these two sites, then, while animals outnumber all other motifs, they are not the primary figures at either of the sites.

Second, the motif inventory in Appendix D does not reveal the fact that these two sites are small, high, and somewhat difficult to see, though they are both freely accessible. If the purpose of these sites were to express identity, they would very probably be more visible. If we consider the other sites where animals are found in high frequencies, we encounter other obstacles to this hypothesis. Site 412-2, with more birds than any other figure, is similarly small, high, and not very visible, while the other panel with many birds, site 414-1, contains 3 two-meter tall anthropmorphs with 10 ten-centimeter birds about the head of one of the anthropomorphs – clearly, the birds are subsidiary figures, and are not the 'key' to this site. Moving on to the ungulates, at site 607-1 they nearly

outnumber anthropomorphs. This site, however, is in such a poor state of preservation, the numerical data are most certainly biased.

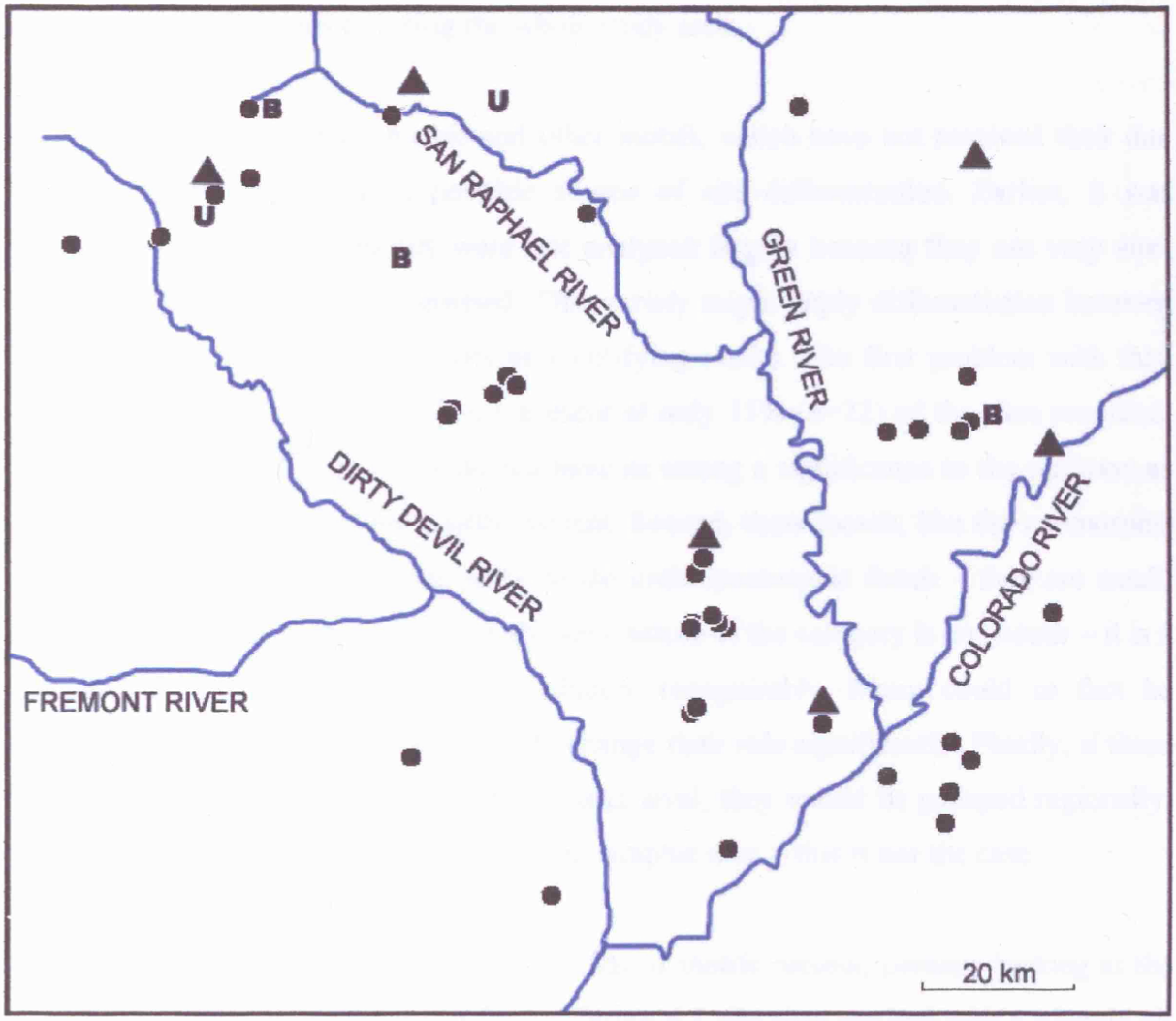

Figure 6.1 – The location of certain special sites. B = sites with many bird motifs; U = sites with many ungulate motifs. Triangles mark the location of sites with more than 50 motifs.

There remains the issue of the map shown above, and the fact that it shows these sites with large concentrations of animal motifs concentrated in the northern half of the study area – surely this is significant? The site sample used for this study, however, is not complete. The Maze District, found in the southern portion of the study area, contains around 50 *known* sites that were not documented – these are more than enough to balance the map, should some sites in that area be heavily populated by animals. Before conclusions can be drawn regarding site differentiation based upon animal motifs, more

work needs to be done. The conclusions reached by the phenomenological methods, however, showed strong consistencies throughout the entire study area with the given sample – this is because they worked site-by-site, rather than attempting to draw sweeping generalisations covering the whole study area.

We might also consider geometric and other motifs, which have not received their due attention in this report, as a possible source of site differentiation. Earlier, it was suggested that geometric motifs were not analysed largely because they are very site-specific and are not easily categorised. This variety might imply differentiation between local groups using geometric motifs as identifying marks. The first problem with this, however, is that geometric motifs are present at only 35% (n=22) of the sites recorded, immediately suggesting that they do not have as strong a significance to the tradition as anthropomorphs, which are invariably present. Second, these motifs, like the zoomorphs, are all visually and spatially secondary to the anthropomorphic forms – they are small, scattered, and do not stand out. Third, the very nature of the category is erroneous – it is a catch-all for forms that are not immediately recognisable. Many could in fact be representational or symbolic, which could change their role significantly. Finally, if these forms are identity markers on a group or band level, they would be grouped regionally, with similar forms appearing over a fixed geographic area – this is not the case.

Instead of differentiating a site based the kinds of motifs present, perhaps looking at the number of motifs will be more fruitful. In *Figure 6.1*, the sites marked with a triangle all contain more than 50 motifs, and represent the largest sites in the tradition. They are all gallery sites as defined in this thesis. They were produced over time, representing several disperate painting episodes, and the physicality of the sites would allow for large numbers to gather in the vicinity of the panels. These clues point to the possibility that these large sites were used as aggregation sites. If this is true, one would expect these sites to be spread evenly across the land – perhaps one site in each group territory. As the map shows, this appears to be the case.

In fact, the sites are spread through the geographic areas outlined very early in this thesis. There are two of these large sites at either end of the Maze area, one in the Moab Valley, one in the Book Cliffs, and two in the San Raphael Swell, on either side of the San Raphael River gorge. This, finally, might say something of site differentiation that supports the phenomenological data. Recalling the earlier discussion of Southern Paiute life-ways, it was mentioned that social ties between camp groups extended to physical boundaries in the landscape, and that these boundaries enclosed large meta-groups (bands) in which regional dialects in all material and cultural forms developed (Knack 2001). The Southern Paiutes were a highly mobile people, but they necessarily stuck to certain territories imposed upon the by the landscape; therefore, to find that differentiation between the material culture of different bands was tied to the physicality of the land is not surprising. The large gallery sites shown on the map above might reflect a similar social phenomenon occurring among the Archaic peoples, whereby group identity extends to physical boundaries in the landscape, and within those boundaries, one large, central rock art site provided focus for social and ritual expression.

If this were true, one would expect to find differentiation of some form between the sites found in each of these regions. This differentiation is not, it seems, found in the kinds of motifs found at different sites, but if we recall the earlier discussion of the forms the art takes, it will be remembered that there are regional variations in the shapes and methods used to produce anthropomorphs, and that certain motifs, like rabbits, are only found in certain areas. This supports the supposition that the material culture of the Archaic peoples found different expression in different, physically bound areas of the landscape.

While this differentiation is important, it is still not of the level we hoped to find when beginning this brief exploration. The primary kind of site differentiation demonstrated by the phenomenological data points to different kinds of sites which were used to different ends: large, public ceremonial sites and small, personal ritual sites. As the motif inventory in Appendix D clearly suggests, the kinds of motifs found at these different places do not suggest this kind differentiation, as all categories of motif are distributed more or less equally through all sites. Again, experience with other rock art traditions

suggests different kinds of sites should have different kinds of motifs. Let us turn to another rock art tradition to further explore the validity of this assumption.
The rock art of the Anasazi is a useful tradition to compare with BCS rock art because while the art was made by people living in a similar landscape, it was produced by sedentary agricultural people who did not move around the land. Moreover, the art is accessible more directly than other local traditions because there is some ethnography associated with its later manifestations which can help us understand it better.

Because the Anasazi were sedentary, we would expect to find different kinds of regional variation in the rock art than is apparent among the rock art of highly mobile Archaic peoples. Instead of finding regional variation extending across large areas to physical barriers in the land, such variation should be restricted to the inevitably smaller territories utilised by different social groups who were tied very strongly to the local landscape.

There were two distinct periods in Anasazi history – we will look at both, starting with the latest manifestation, called the Pueblo IV period, from A.D. 1325 – 1600. During this period, the Anasazi lived primarily south-east of the study area, in what is today New Mexico. They lived in large populations of up to several thousand – cities by most standards, made of large collections of stone buildings known as pueblos. The rock art of this era, according to Schaafsma (2000), focuses very heavily on the theme of warfare. It is not, she contends, a record of military events, but rather a statement expressing the ideology of warfare. Indeed, fighting took place between villages, and between the Anasazi and outside culture groups.

During the Pueblo IV period, rock art was found primarily in two kinds of places – isolated panels and 'war shrines'. War shrines are groups of war-related imagery found in high, secluded places, where, later ethnography suggests, warriors went for power (Schaafsma 2000:108). These were places where supernatural beings with war powers lived. Also found at these sites were high concentrations of sky-related imagery, probably corresponding to the high location of these kinds of sites.

Opposite these war shrines were isolated panels found near villages or in open country far from population centres. These sites contain primarily shield imagery – shields, the ethnographies suggest, were highly decorated, but not very strong. Their power came from the images placed on them, and the protection they offered was more supernatural than physical. Schaafsma suggests these isolated shield motifs served a protective function over large areas of the landscape. While the war shrine sites do in fact contain shield images, the isolated sites are much more restricted in their motif repertoire. We therefore find different kinds of images placed in different kinds of sites.

The latest manifestations of shield images probably had a function related to social identity as well. Schaffsma talks of warrior societies emerging in the 14th century, which "functioned to consolidate war rituals and belief systems regarding Pueblo conflict, to sponsor public and private rituals, and to organize and prepare men for combat" (170). Specific shield designs belonged do different warrior societies, and served to identify them in the rock art. This social identity function of the rock art, however, was probably not present in earlier Pueblo IV sites (162).

The other manifestation of Anasazi culture, called the Pueblo III period from A.D. 1100-1300, is much closer to the BCS study area, and in fact overlaps to some extent in the southernmost edge of the region. During this period, the Anasazi were much more like the Fremont people – semi-agriculture and certainly more sedentary than the Archaic hunger-gatherer populations, but not living in large villages. The rock art of these earlier Anasazi populations is still focused around a theme of warfare, but the variety of rock art motifs present was much lower, and the shield was the most common form of all war-related imagery.

Shield motifs during this period were found in different locations in the south than in the north. In the south, the images were located near food storage sites and cliff dwellings, suggesting a protective function; indeed, there is evidence that infighting among groups was common at the time. Further north, where the land is today recognized as a frontier zone between the Anasazi territory and that of the Fremont, the location of shield images

changes. Some are associated with highly defensive dwellings (defensive in terms of both location and design), but many are spread out across the landscape in a variety of locations. Interestingly, some of the shield forms that are clearly of Anasazi origin are in panels containing anthropomorphs that are unmistakably Fremont. In fact, the co-occurrence of Fremont and Anasazi rock art in this boundary zone is common. Finally, the shield forms in the north are more often associated with other Anasazi motifs, especially anthropomorphs.

Schaafsma concludes that during the Pueblo III period, "rock art with warfare themes is more complex and vigorous in sites along the Anasazi/Fremont border zone than it is in adjacent Anasazi sites to the south" (20). She suggests that the shield images in the north served as defense against outsiders (the Fremont), while in the south, they served primarily as markers of group identity "in a social context characterized by sporadic warfare" (23). Interestingly, however, the shield designs showed no regional variations north to south – the same kinds of designs were used in both areas, despite the fact that the location of the sites suggests different functions. Schaffsma confirms this, suggesting that "location, size, and general visibility may be the more important attributes for determining the function of these shield paintings" (24).

To review, the earlier manifestations of Anasazi rock art, when the Anasazi lived a semi-agricultural life just south of Canyon Country, showed some variation in content but no variation in motif form in sites which seemed to have different functions. Later manifestations of Anasazi rock art, when the people lived a fully sedentary, agricultural life far to the south-east of Canyon Country, showed differences in the form and content of rock art in sites with clearly different functions. During both periods, sites with different functions were found in different locations and in different kinds of places in the landscape.

This suggests that as the Anasazi became progressively more fixed to the land, the content of rock art sites with different functions became progressively more differentiated. It was only the very latest, 14th century manifestations of the shield motifs

that expressed any kind of group identity, while the rock art closest to the BCS era showed only minor differences in site content for sites with different functions.
Clearly, it there is no hard and fast rule demanding that rock art sites that have different functions within a society must contain different kinds of images. Moreover, at least among the Anasazi, evidence suggests that as the people became more and more sedentary, the content of rock art sites with different functions became more and more specialised. This trend certainly has a logic to it. A highly mobile culture group has access to a huge variety of places in which to produce rock art. The rock art they produce must communicate across large spatial and temporal distances: since people are always on the move, and there is no knowing when the images will be seen next and by whom. It is therefore advantageous to keep to a limited vocabulary of motifs, even across a time span of centuries, to express ideas. What is left is the landscape – variety in site location can create different experiential contexts within which the same or similar images are viewed, thereby leading to different overall experiences with different cultural significances.

Among sedentary peoples, the opposite becomes true. Limited access to places in which to produce rock art means expression must occur in different forms. Since the land in which the rock art is produced is within a specific group's territory, it is more clear who will view the images, and how often. More and different motifs can therefore be used to express different ideas.

BCS rock art exhibits a small 'vocabulary' of motifs and relative lack of variation between sites. This uniformity is outstanding, as it occurred across centuries, and possibly even millennia. In the end, this should not be surprising, but instead should be expected. Life had to be kept simple, and once something was found that worked well, there was no reason to change it until it stopped working. Archaic people found expression in their rock art, and varied that expression through their choice of places rather than via strictly graphical means. This remained constant across a huge span of space and time because the people were mobile and were in limited contact with one another. Only when they learned of agricultural lifeways from newcomers from South

America did they start to settle down, and when this happened, their rock art changed significantly. But that is a topic which would deserve its own thesis.

***

> *...I was standing on the highest mountain of them all, and round about beneath me was the whole hoop of the world. And while I stood there I saw more than I can tell and I understood more than I saw; for I was seeing in a sacred manner the shapes of all things in the spirit, and the shape of all shapes as they must live together like one being (Neihardt 1972, 36).*

These are the words of Black Elk, a member of the Ogalala Sioux who lived through and experienced the systematic extermination of his people across the nation more than a century ago. In 1869, as a boy of nine, Black Elk fell sick, and had a long and vivid vision. In the passage above, he recalls a part of that vision in which he was standing on top of Harney Mountain, the centre of the world, looking over the earth and his people. From this mountain top, Black Elk felt an understanding of the world, one which came from much more than what he saw below him.

The methods used in this project work because they allow a modern Western researcher to move ever so slightly towards seeing the world as Black Elk saw it in his vision. This dissertation began with two different descriptions of the same rock art site: one very empirically descriptive, and the other very poetic. It was suggested that the approach taken herein would work to combine the two approaches, and I believe it has succeeded.

I also believe that the experiential aspects of this work are not foreign to even the most scientifically-minded rock art researcher. These thoughts and ideas, however, never make it into their publications, as they are deemed personal and subjective. This approach has allowed for those experiences to be explored in a controlled and systematic manner, and has provided a vehicle through which they may be expressed. By standing on the

shoulders of all the researchers whose writings were explored in Part II, and by consciously applying their ideas while in the field through a focused attempt to see the rock art in a different manner, I have achieved a new kind of understanding of the rock art and of the theories and methods applied to it.

From here, this work can move in several directions. First, I feel I was amiss in visiting the sites only during the spring/summer season; I am sure visits to the same places during the winter would afford a fuller understanding of how the art is experienced. Visits to more sites would, of course, expand the work as well. Even re-visiting the sites explored in this work, after having written these pages, would allow the art to be seen with fresh eyes – a follow-up trip to the field at the end of this project could well have improved it.

This dissertation, however, was not just about BCS rock art, but also about the ways in which rock art in general is approached. Though I believe a word of caution is in order: the methods here, which deeply involve the researcher in the rock art, cannot be fully appreciated by just reading them – it was only after the fifteenth or twentieth site I visited that the full potential of the approach sunk in, and an understanding of its importance began to form. I am certain now that archaeological methods alone are wholly insufficient for the study of rock art. It is better suited to being treated as an informant than an artefact, and through long dialogue, it *can* help you to better understand it.

Appendix A – Dates

Direct dating of pigments			
Site	**Date (B.P.)**	**Reference**	**Comments**
White Bird Site	2810 ± 75	Tipps 1995	From pigment flaked off of panel. Multicomponent site.
Great Gallery	3400 ± 65	Tipps 1995	From pigment flaked off of panel
Dubinky Well	2564 ± 115	Tipps 1995	From pigment flaked off of panel

Dating of materials possibly associated with rock art			
Site	**Date (B.P.)**	**Reference**	**Comments**
Harvest Scene	1860 ± 50	Tipps 1995	Slab-lined hearth below panel.
42WN766	2660 ± 80	Tipps 1995	Ash stain below panel.
Alcove near Moab	1530 ± 125	Coulam and Schroedl 1997	Pine needles from a packrat middens covering a BCS anthropomorph - minimum date
Rochester Creek	2015 ± 185	Tipps 1995	Ash stain below panel containing ground stone slab stained with red pigment.
Unnamed Maze Panel	2770 ± 215	Tipps 1995	Ash stain at base. Diverse artefact scatter, probably single occupation

Clay figurines			
Cowboy and Walter's Caves	8275 ± 80 6675 ± 75 6390 ± 70	Berry and Berry 1986; Schaafsma 1990	Charcoal in layers containing an unfired clay figurine (Cole 1990; Schroedl 1989).
Sudden Shelter	6670 ± 160 6390 ± 70	Schaafsma 1990	Charcoal in layers containing an unfired clay figurine.

Appendix B – Site Recording Forms

Heading appearing on each page

Site name
The name of the site as it is commonly referred to in the literature or between researchers.

Field number
Each site was assigned a unique and arbitrary number when recorded for organizational purposes.

Site number
The official number of the site as found in archaeological records, if available.

Date
The date the site was recorded

Time
The time of day the site was recorded

Page 1 – Location

USGS map
The United States Geological Survey (USGS) topographical map on which the site is located.

County
The county of Utah in which the site is located.

Ownership
The owner of the land on which the site is located. Either Bureau of Land Management (BLM), National Park Service (NPS), or private.

Canyon
The name of the canyon in which the site is located, if any.

Elevation
The approximate elevation of the site, as given by my GPS receiver.

Latitude and Longitude
The latitude and longitude of the site, as given by my GPS receiver.

Directions
Driving/hiking directions to the site from the nearest major highway.

Page 2 – Setting

Site type
This is an artificial category used to assist in analysis and cross-referencing. Some types included 'gallery', which is a large and easily accessible site consisting of a long row of large figures; 'habitation', which is a panel occurring in a rock shelter or cave showing signs of habitation; and 'single episode', which describes small sites of just one or a few figures.

Distance to water
The distance, in metres, to the nearest water source. This may have been a river, spring, or seep. This information was not always obvious.

Type/name of water source
The type (river, spring, etc.) and name, if any, of the nearest water source.

Dimensions of place
BCS rock art sites are often found in well-bounded places; the dimensions of the place were recorded here. This was often approximate, and at times, was impossible to determine.

Setting
A brief description of the setting of the site, both on a local scale and relative to the surrounding landscape. This included descriptions of the location of the site within the canyon, of the canyon in which the site is located, and of the position of the canyon relative to the larger landscape. Some data on the local biotic communities were also recorded here.

Notes
Other information regarding the setting of the site, such as the presence of archaeological debitage, modern roads or fences, etc.

Keywords
Keywords abbreviated the above data and helped with analysis and cross-referencing.

Page 3 – Panel Data

Panel dimensions
The size of the decorated area, measured horizontally and vertically, from the outside edges of the outermost motifs.

Height above nearest bottomland
This measurement recorded the distance between the highest place a person could stand at the base of the rock art panel, and the nearest extended plain, usually the bottom of the

canyon, but sometimes a large ledge if the bottom of the canyon was not accessible. This measurement basically showed how far a person must climb to reach the rock art.

Slope
The slope of the decorated rock face, usually vertical, but sometimes negative.

Panel bearing
The cardinal direction which the decorated panel faces.

Rock description
A description of the rock face on which the art is found. This included the type, colour and texture of the stone, description of any patina, water stains, or other such elements, as well as a description of the physical shape of the surface.

Panel condition
The relative state of preservation of the panel. Usually more information was recorded here for sites in poor condition, such as panels which were quite faded or where the pigment was coming off of the stone surface.

Impact agents
Any elements, natural or otherwise, which impacted the state of preservation of the panel. This included water stains, mineral build-up, lichen, historic and modern graffiti, and any known information regarding past attempts to 'restore' the rock art.

Page 4 – Art Data

Type of art
The kind and number of motifs present at the site; for example, a site might contain 12 anthropomorphs, 2 zoomorphs, 4 geometric motifs and 2 unidentifiable motifs.

Number of motifs
The total number of discrete motifs at the site.

Colors used
The colours present in the painted figures.

Surface preparation
Occasionally, surfaces were ground smooth or otherwise altered prior to the application of pigment. Such data were recorded here.

Notes
Miscellaneous data regarding the art

Keywords
Keywords abbreviated the above data and helped with analysis and cross-referencing.

Page 5 – Motif Inventory

Motif number
A number, based upon the field number assigned to the site, was given to each motif for organizational purposes.

Motif type
Motifs were placed into artificial categories, such as 'anthropomorph', 'zoomorph', and so forth, to help with analysis and cross-referencing.

Color(s)
The colour(s) used in the painted figures.

Dimensions
The dimensions, in centimetres, of the motif.

Application technique(s)
How the paint was applied (fingers, large brush, fine brush) or, in the case of non-painted motifs, whether it was pecked, scratched, abraded, etc.

Description
A description of the form and colour of the motif.

Notes
Miscellaneous data regarding a particular motif.

Keywords
Keywords abbreviated the above data and helped with analysis and cross-referencing.

Page 6 – Phenomenological Description

Approach
A description of how the panel is approached, usually from the canyon bottom but sometimes from further away. This description highlighted how a person moves while approaching the site, when and where the art first becomes visible, and so forth. When applicable, the approach was described from different directions.

Being-at-site
A description of the experiences involved in viewing the rock art; for example, some sites are far overhead and require the visitor to look up, or perhaps the best spot to stand while viewing the art is a precarious ledge and one must be careful to maintain one's balance.

Physicality
A description focusing on the physicality of the place in which the rock art is found, and its relation to the visitor. The scale of this description ranged from very local, to encompassing the whole canyon where the rock art is found.

Composition of motifs
A description of the composition of the rock art motifs relative to the observer; for example, motifs at some sites are aligned in a neat horizontal row across the cliff face, while others are scattered across the surface in a less organized fashion. The composition of the motifs affects how the art is experienced.

Notes
Miscellaneous data regarding the experience of the art and its physical context, such as information regarding outstanding light or acoustic phenomena preset at the site.

Keywords
Keywords abbreviated the above data and helped with analysis and cross-referencing.

Page 7 – References

References
Any references to the site in the literature, published or unpublished, including photographs, descriptions, etc.

Records
If archaeological records for the site exist, they were noted here.

Comments
Any data which did not fit the above categories was recorded here; for example, if I was taken to the site by someone, I noted that in the comments field. Often, this was the space in which I recorded the more personal aspects of my visits to a site.

Barrier Canyon Rock Art Research Data

Michael Paul Firnhaber
PhD Research Project
University College. London U.K.

SITE NAME
FIELD NUMBER
SITE NUMBER
DATE
TIME

USGS MAP
COUNTY
OWNERSHIP
CANYON
ELEVATION 0 meters

LATITUDE
DEGREES
MINUTES
SECONDS

LONGITUDE
DEGREES
MINUTES
SECONDS

DIRECTIONS

Barrier Canyon Rock Art Research Data

Michael Paul Firnhaber
PhD Research Project
University College. London U.K.

SITE NAME

FIELD NUMBER

SITE NUMBER

DATE

TIME

SITE TYPE

DIMENSIONS OF PLACE

DISTANCE TO WATER 0

TYPE/NAME WATER SOURCE

SETTING

NOTES:

KEYWORDS:

Barrier Canyon Rock Art Research Data

Michael Paul Firnhaber
PhD Research Project
University College. London U.K.

SITE NAME

FIELD NUMBER

SITE NUMBER

DATE

TIME

PANEL DIMENSIO

WIDTH 0 *meters*

HEIGHT 0 *meters*

HEIGHT ABOVE NEAREST BOTTOMLAND *meters*

SLOPE

PANEL BEARIN

ROCK DESCRIPTION

PANEL CONDITION

IMPACT AGENTS

Barrier Canyon Rock Art Research Data

Michael Paul Firnhaber
PhD Research Project
University College. London U.K.

SITE NAME

FIELD NUMBER

SITE NUMBER

DATE

TIME

TYPE OF ART

COLORS USED

SURFACE PREPARATION

NUMBER OF MOTIFS 0

NOTES

KEYWORDS

Barrier Canyon Rock Art Research Data

Michael Paul Firnhaber
PhD Research Project
University College. London U.K.

SITE NAME

FIELD NUMBER

SITE NUMBER

DATE

TIME

MOTIF INVENTORY

MOTIF NUMBER

MOTIF TYPE

COLOR(S)

DIMENSIONS

HEIGHT

WIDTH

APPLICATION TECHNIQUE(S)

DESCRIPTION

NOTES

KEYWORDS

Barrier Canyon Rock Art Research Data

Michael Paul Firnhaber
PhD Research Project
University College. London U.K.

SITE NAME

FIELD NUMBER

SITE NUMBER

DATE

TIME

APPROACH

BEING-AT-SITE

PHYSICALITY

COMPOSITION OF MOTIFS

NOTES

KEYWORDS

Barrier Canyon Rock Art Research Data

Michael Paul Firnhaber
PhD Research Project
University College. London U.K.

SITE NAME

FIELD NUMBER

SITE NUMBER

DATE

TIME

REFRENCES

RECORDS

COMMENTS

Appendix C – Geological Layers

The following is a brief description of some of the sedimentary layers exposed in the study area. The image below is a schematized representation of these, with the Entrada Sandstone on the top representing the most recent layer. Below, some relevant qualities of each type of stone are mentioned. Source: Draut 2005.

Entrada Sandstone (Middle Jurassic, 175 to 160 mya)

This upper layer, eolian in origin, is thickly bedded, coloured red to pale orange, and fine-grained. It tends to form massive cliffs. Extremely resistant, this layer also forms most of the fins, spires, and arches found throughout the study area. Entrada Sandstone is well-suited for supporting rock art.

Navajo Sandstone (Lower Jurassic, 160 to 145 mya)

Coloured white to pale yellow, this layer is also cliff-forming. Navajo sandstone, which is predominantly eolian in origin, often weathers into large domes. Prominent throughout the study area, this layer supports rock art very well.

Kayenta Formation (Lower Jurassic, 160 to 145 mya)

This unit consists of mudstones, shales, and other water-deposited stone. Red-brown to grey and pale purple in colour, stone from the Kayenta Formation weathers into irregular cliffs and slopes, and is not suited to supporting rock art, though fossils and dinosaur tracks are commonly found throughout the layer.

Wingate Sandstone (Lower Jurassic, 160 to 145 mya)

This unit forms prominent, smooth cliffs in red-browns. High levels of iron in this layer promotes the creation of large streaks of iron oxides covering the surface of Wingate cliffs. Depositional environment is eolian and inderdunal. Rock art is often found on rock from this member, usually where the time-darkened surface has broken away, revealing the lighter-coloured interior.

Chinle Formation (Middle to Upper Triassic, 145 to 200 mya)

This unit is composed of soft alluvial deposits in dark red-browns, greys, purples and greens. Conglomerate material and course gravel is common throughout the layer. This stone erodes into loose slopes, and cannot support rock art.

Moenkopi Formation (Lower Triassic, 150 to 145 mya)

This unit is composed of find sandstones, shales, and mudstones of alluvial origin. Colour ranges from red to brown. Chert inclusions are common, and provide raw material for stone tools. Petrified wood is also found in this unit, and it holds the area's largest uranium deposits. It erodes quickly into soft slopes, and is not suitable for supporting rock art.

White Rim Sandstone (Permian, 300 to 250 mya)

This cliff-forming unit of yellow-grey eolian sands is very resistant to weathering. Its distribution is limited, and is found in the northern part of Canyonlands National Park capping tall cliffs. It would support rock art, but its location prevents it from being utilized as such.

Organ Rock Shale (Permian, 300 to 250 mya)

This alluvial layer of siltstones and sandy shales forms soft, reddish-brown slopes, and cannot support rock art.

Cedar Mesa Sandstone (Permian, 300 to 250 mya)

This unit is made up of white to pale brown eolian sandstones inter-bedded with lenses of red, green, and brown sandstone. Though cliff-forming, it is not often exposed in the study area.

Part 7 - Appendix D – Motif Inventory

Site Num.	Site Name	Anthropomorphs	Polymorphs	Zoomorphs	Snakes	Birds	Ungulates	Dogs	Plants	Rainclouds	Other Motifs	Unidentified	Total
403-1	Intestine	3				16				1	1		21
403-2	Antler Man	2									1	1	4
403-3	Centipede C.	5		1	1						1	3	11
403-4	SM Petro	2	1					1					4
403-5	Green Snake	3			2					1	1		7
405-1	SM High	2			1								3
405-2	SM Rake	3			1								4
406-1	SM Lone	1										3	4
406-2	Dubinky	5									2		7
407-1	Yellow Comet	4					3				3		10
407-2	YC Alcove	3											3
410-1	Tusher	8					1					7	16
410-2	Black Dragon	5	1	1								3	10
411-1	Asc. Sheep		1				27				2		30
411-2	Rochester	5											5
411-3	Rochester 2	1			1						2		4
411-4	Molen	22			6		11				5	6	50
412-1	Ferron	11										2	13
412-2	Ferron 2	3			3	7	1	1		1	5	20	41
413-1	V Spring	21		2		2	2					3	30
413-2	Buckhorn	52	3	3	5	9	6				12	13	103
414-1	Sinbad	3	1		3	10					26		43
416-1	Temple Mtn.	7		1			4	1				5	18
417-1	Alcove Site	18	5						1			8	32
420-1	Barnes	9				1	4				2	12	28
420-2	High Arch Site	2										2	4

Site Num.	Site Name	Anthropomorphs	Polymorphs	Zoomorphs	Snakes	Birds	Ungulates	Dogs	Plants	Rainclouds	Other Motifs	Unidentified	Total
420-3	Ekker Site	7					3						10
423-1	UH Petros	5									1		6
423-2	UH Mixed												*
424-1	UH Faded												*
426-1	Moqui Cave	1											1
426-2	Dragonfly	10	1	6		5					2		24
426-3	Blue Eyed	6				1						2	9
428-1	White Bird	15			1		3						19
428-2	SC Pocket	4									3		7
429-1	Headdress	2										6	8
429-2	SOB Hill	1											1
429-3	A High Site	18		1				1					20
501-1	Peekaboo	4					1						5
501-2	Lone White	1											1
501-3	Flying Rug	18					1						19
502-1	Lone Red	1											1
602-1	Courthouse												*
602-2	Court. Rock	6											6
604-1	Birdcage	8			1		1			1	2	8	21
605-1	Sego Main	46		1	2		2				6	18	75
605-2	Sego 2	6									1		7
606-1	Short Canyon	2									2		4
606-2	Secret Site	3											3
607-1	Prickly Pear	16	1	2		7	13	1		1	18	20	79
612-1	Happy 1	4											4
612-2	Happy 2	1											1
614-1	Junction Site	11					4					12	27
614-2	Harvest	28		4	8	9	4		5	1		6	65

Site Num.	Site Name	Anthropomorphs	Polymorphs	Zoomorphs	Snakes	Birds	Ungulates	Dogs	Plants	Rainclouds	Other Motifs	Unidentified	Total
615-1	Maze Petros	7					2					2	11
616-1	HS High	19		1	1		1			1		12	35
616-1	HS Shelter	29		1	1		1	2				12	46
616-4	HS Alcove	32											32
617-1	Great Gallery	67			3	5	26	3			1	7	112
618-1	Bull Mtn.	7			5								12
620-1	Hog Spring	1						1					2
621-1	Perfect Panel	5			1		2						8
	TOTAL	591	14	24	44	72	123	11	6	7	99	188	1179

* Motif data was not collected for three sites. **424-1** (UH Faded) is too faint to clearly make out any figures. **423-2** (UH Mixed) is in a poor state of preservation, and did not reveal clear motifs. **602-1** (Courthouse) has been subjected to heavy vandalism; it was subsequently scrubbed with hard brushes and solvents, and was later 'conserved'. While motifs are still present, the original site is essentially lost.

Category	***n***	**%**
• Anthropomorphs	*n*=591	50%
• Unidentified	*n*=188	16%
• Ungulates	*n*=123	10%
• Other Forms	*n*=100	8%
• Birds	*n*=72	6%
• Snakes	*n*=44	4%
• Zoomorphs	*n*=24	2%
• Polymorphs	*n*=14	1%
• Dogs	*n*=11	1%
• Plants	*n*=6	>1%
• Rainclouds	*n*=6	>1%
Total	*n*=1179	100%

Appendix E – Site Summary

Site Number Site Name

Height of site above canyon floor, visibility of site from canyon floor
Panel dimensions, width x height
Rock face: *description of decorated face*
Approach: *description of final approach to site*
Ground: *description of ground where visitors stand*
Viewing: *notes on how the images can be viewed*

403-1 Intestine

3 metres above canyon floor, visible
Panel 1.2 x .85 metres
Rock face: spalled area on cliff face
Approach: short moderate climb
Ground: narrow, precarious ledge
Viewing: eye level from ledge, overhead from below

403-2 Antler Man

10 metres above canyon floor, just visible
Panel 1 x 1 metres
Rock face: spalled area on cliff face
Approach: short, moderate climb, one difficult spot
Ground: flat, high ledge
Viewing: eye level

403-3 Centipede Cave

2 metres above canyon floor, not visible
Panel 2 x 1 metres
Rock face: ceiling of small cave
Approach: easy walk into cave
Ground: flat and sandy
Viewing: low and on ceiling, must crouch

403-4 SM Petroglyphs

15 metres above canyon floor, visible
Panel 2 x 1.3 metres
Rock face: flat cliff face
Approach: up steep sand slope, along narrow ledge
Ground: very small, high, precarious ledge
Viewing: eye level from ledge

403-5 Green Snake

30 metres above canyon floor, not visible
Panel 1.3 x 1.5 metres
Rock face: large alcove full of dark water stains
Approach: long, steep climb, but not difficult
Ground: large ledge, but loose and rocky, slightly angled
Viewing: overhead from ledge

405-1 SM High Site

40 metres above canyon floor, not visible
Panel 2 x 1 metres
Rock face: spalled area on cliff face
Approach: long climb up loose dirt and rock, then up benches
Ground: flat moderately-sized ledge
Viewing: eye level from ledge, but a bit too close and can't step back

405-2 SM Rake

25 metres above canyon floor, visible
Panel 2 x 2 metres
Rock face: smooth cliff face with large overhang
Approach: short climb to ledge downstream from panel
Ground: large ledge low, smaller ledge high
Viewing: overhead from low ledge, too close from high ledge

406-1 SM Lone

10 metres above canyon floor, visible
Panel 1 x 2 metres
Rock face: flat cliff face with slight overhang
Approach: up talus to ledge left of panel
Ground: narrow rocky ledge
Viewing: obliquely from left or very close from ledge

406-2 Dubinky

10 metres above nearest bottom land (upland site), visible
Panel 3.5 x 2 metres
Rock face: flat face within large alcove
Approach: short walk up talus to alcove
Ground: flat and sandy
Viewing: far overhead, no room to step back as ground falls away

407-1 Yellow Comet

25 metres above canyon floor, just visible
Panel 3.5 x 2 metres
Rock face: flat cliff face
Approach: long climb up talus slope of large rocks
Ground: large rocks with flat sandy spots between them
Viewing: eye level from rocks, overhead from between them

407-2 Yellow Comet Alcove Site

30 metres above canyon floor, not visible
Panel 7 x 2 metres
Rock face: flat cliff face adjacent to large alcove
Approach: long climb up talus slope of large rocks
Ground: flat and sandy
Viewing: art low to ground, much crouch or step back

410-1 Tusher

12 metres above canyon floor, visible
Panel 1.5 x 1.5 metres
Rock face: small cliff face perpendicular to canyon
Approach: up small talus slope, then precarious climb up cliff to panel
Ground: very small ledge, cannot move from it or along it
Viewing: overhead but very close

410-2 Black Dragon

40 metres above canyon floor, visible
Panel 8 x 3 metres
Rock face: flat cliff face
Approach: long climb up a steep talus slope
Ground: furniture-sized rocks
Viewing: slightly overhead, must move around a lot

411-1 Ascending Sheep

Level with bottom land (upland site), visible
Panel .5 x .2 metres
Rock face: small spalled area on rock outcrop
Approach: walk right to rock
Ground: flat ground or very small ledge further in than decorated panel
Viewing: far overhead from ground, too close and uncomfortable from ledge

411-2 Rochester

20 metres above canyon floor, not visible
Panel 1 x .2 metres
Rock face: low to the ground on one large rock among many
Approach: along promontory between two canyons to rock outcrop
Ground: flat and sandy, but place is narrow
Viewing: narrow crack, images at ground level, awkward

411-3 Rochester 2

3 metres above canyon floor, visible
Panel 1 x 1 metres
Rock face: small spalled area on low cliff with slight overhang
Approach: walk up small hill from canyon bottom
Ground: flat and sandy
Viewing: easy and at eye level

411-4 Molen

Level with canyon floor, visible
Panel 200 x 1 metres
Rock face: several flat faces along low cliff
Approach: along canyon floor
Ground: flat and sandy
Viewing: slightly overhead

412-1 Ferron

40 metres above canyon floor, not visible
Panel 2 x .3 metres
Rock face: high flat face in cliff
Approach: long climb from canyon floor or short drop from above, hard either way
Ground: high, rocky ledge
Viewing: far overhead but small and easy to see

412-2 Ferron 2

6 metres above canyon floor, visible
Panel 3 x .5 metres
Rock face: flat face with overhang above creek
Approach: across creek and up to rocks below panel
Ground: large rocks
Viewing: overhead

413-1 V Spring

Level with canyon floor, visible
Panel 5 x 1 metres
Rock face: flat cliff face above creek
Approach: walk to cliff face
Ground: flat and sandy
Viewing: art small and very far overhead, difficult to see

413-2 Buckhorn

Level with canyon floor, visible
Panel 200 x 6 metres
Rock face: flat cliff face
Approach: walk to cliff face
Ground: flat and sandy
Viewing: eye level to overhead

414-1 Sinbad

Level with bottom land (upland site), visible
Panel 10 x 1 metres
Rock face: alcove in large rock outcrop
Approach: walk to rocks
Ground: flat and sandy
Viewing: art just overhead

416-1 Temple Mountain

14 metres above canyon floor, very visible
Panel 20 x 4 metres
Rock face: flat cliff face with overhang
Approach: moderate climb to ledge
Ground: canyon bottom or ledge below art
Viewing: far overhead from canyon bottom, too close and large from ledge

417-1 Alcove Site

50 metres above canyon floor, not visible
Panel 2 x .6 metres
Rock face: ceiling of small, high alcove
Approach: down slot canyon, up steep sandstone slope, across narrow ledge
Ground: floor of alcove fairly large but steeply sloped outwards
Viewing: contort, crouch, kneel, and careful not to fall

420-1 Barnes

Level with canyon floor, visible
Panel 1 x .4 metres
Rock face: flat cliff face
Approach: walk to cliff, can climb to small rocky ledge below panel
Ground: flat and sandy, or narrow ledge
Viewing: three metres overhead form ground, close but comfortable form ledge

420-2 High Arch Panel

35 metres above canyon floor, not visible
Panel 1 x .4 metres
Rock face: spalled area beneath arc high up cliff
Approach: long, moderate climb up very loose talus slope
Ground: series of narrow ledges
Viewing: overhead or eye level from stable ledges

420-3 Ekker

Level with canyon floor, visible
Panel 8 x 3 metres
Rock face: flat cliff face with overhang
Approach: walk to cliff face
Ground: slightly sloped with some rocks to get close
Viewing: overhead to eye level

423-1 UH Petroglyphs

25 metres above canyon floor, not visible
Panel 2 x .5 metres
Rock face: flat cliff face
Approach: moderate climb
Ground: flat and sandy
Viewing: slightly overhead

423-2 UH Mixed Site

30 metres above canyon floor, just visible
Panel 50 x 3 metres
Rock face: long flat face above high ledge
Approach: moderate climb up sandy slope
Ground: flat, wide ledge
Viewing: eye level to overhead

424-1 UH Faded

50 metres above canyon floor, not visible
Panel 4 x 1 metres
Rock face: spalled area high up cliff
Approach: moderate climb up sandy slope, hand-over-hand climb to ledge
Ground: flat and unstable ledge
Viewing: slightly overhead

426-1 Moqui Cave

50 metres above canyon floor, not visible
Panel .1 x .2 metres
Rock face: wall of small, high cave
Approach: up talus, then up series of benches to cave
Ground: flat and sandy
Viewing: low, must hunch

426-2 Dragonfly

Level with canyon floor, visible
Panel 1 x 1 metres
Rock face: steeply slanted rock face in small alcove
Approach: walk to face
Ground: flat and sandy, or on large rock
Viewing: far from ground, or close and just above head while sitting on rock

426-3 Blue Eyed

Level with canyon floor, visible
Panel 1 x .5 metres
Rock face: spalled area on cliff face
Approach: walk to cliff
Ground: large flat or slanted rocks
Viewing: eye level or too close

428-1 White Bird

Level with bottomland (uplands), moderately visible
Panel 2 x 6 metres
Rock face: flat face beneath large overhang
Approach: walk to rock outcrop
Ground: flat and sandy
Viewing: mostly eye level, some overhead

428-2 SC Pocket

Level with bottomland (uplands), moderately visible
Panel 6 x 1 metres
Rock face: flat rock face
Approach: slight uphill walk to cliff
Ground: flat and sandy
Viewing: below eye level, some now behind tree but art probably older than tree

429-1 Headdress

7 metres above canyon floor, visible
Panel 3 x 2 metres
Rock face: flat face beneath large overhang
Approach: moderate but short climb to rocks below panel
Ground: flat rock
Viewing: sit on flat rock beneath 1.5 m overhang

429-2 SOB Hill

Level with canyon floor, visible
Panel 7 x 2 metres
Rock face: low inside rectangular alcove at ground level, behind rock
Approach: walk to cliff face
Ground: flat and sandy
Viewing: climb rock and look behind

429-3 A High Site

30 metres above canyon floor, just visible
Panel 10 x 3 metres
Rock face: spalled area high up cliff
Approach: long and difficult vertical climb
Ground: narrow and precarious ledge
Viewing: incomplete view from below, too close from high ledge

501-1 Peekaboo

25 metres above canyon floor, not visible
Panel 6 x 1 metres
Rock face: spalled area adjacent to natural arch
Approach: steep but easy climb to cliff face
Ground: wide, flat ledge
Viewing: just above eye level

501-2 Lone White

25 metres above canyon floor, just visible
Panel .3 x 1 metres
Rock face: spalled area along wide bench
Approach: steep but easy climb to bench
Ground: wide, flat bench with large rocks
Viewing: eye level

501-3 Flying Rug

30 metres above canyon floor, not visible
Panel 10 x 20 metres
Rock face: flat rock face with negative slope
Approach: moderate climb from creek to cliff
Ground: large rocks
Viewing: images small, low, easy to view

502-1 Lone Red

40 metres above canyon floor, just visible
Panel .4 x .8 metres
Rock face: flat face with large overhang
Approach: moderate climb up slope of dirt and large rocks
Ground: flat bench
Viewing: far overhead

602-1 Courthouse

50 metres above canyon floor, just visible
Panel 5 x 2 metres
Rock face: spalled area above high bench
Approach: long but moderate climb up slope to cliff
Ground: flat ledge
Viewing: just overhead, stand back 2-3 metres

602-2 Courthouse Rock

50 metres above canyon floor, not visible
Panel 3 x .5 metres
Rock face: flat cliff face
Approach: easy climb, then walk along cliff face
Ground: flat and solid ledge
Viewing: just above eye level

604-1 Birdcage

12 metres above canyon floor, partially visible
Panel 10 x 3 metres
Rock face: spalled faces beneath pour-off at end of short side canyon
Approach: moderate climb up loose slope
Ground: steep with furniture-sized rocks, lots of exposure
Viewing: overhead, but watch feet as much as art

605-1 Sego Main

6 metres above canyon floor, visible
Panel 12 x 3 metres
Rock face: flat spalled face
Approach: easy vertical climb to rock ledge
Ground: flat rock ledge
Viewing: eye level to overhead

605-2 Sego 2

Level with canyon floor, moderately visible
Panel 12 x 2 metres
Rock face: flat cliff face with overhang
Approach: in short side canyon, walk to cliff
Ground: flat and sandy
Viewing: images eye level or lower, but today behind vegetation, hard to see

606-1 Short Canyon

40 metres above canyon floor, not visible
Panel .5 x .5 metres
Rock face: spalled face above flat bench
Approach: short climb to bench, along bench to decorated face
Ground: flat and sandy
Viewing: just above eye level

606-2 Secret Site

15 metres above canyon floor, just visible
Panel 1 x 1 metres
Rock face: flat face with negative slope
Approach: steep, difficult climb up loose slope to overhang
Ground: slopes steeply away from cliff
Viewing: art high, difficult to view as ground falls away and cannot step back

607-1 Prickly Pear

Level with canyon floor, visible
Panel 15 x 3 metres
Rock face: large alcove
Approach: walk to alcove
Ground: flat and sandy, or stone ramp
Viewing: at or above eye level and along ramp

612-1 Happy 1

20 metres above canyon floor, not visible
Panel 3 x 2 metres
Rock face: flat cliff face
Approach: moderate climb up rocky slope
Ground: rocky and uneven
Viewing: art overhead, abraded into cliff, hard to see and difficult to view

612-2 Happy 2

10 metres above canyon floor, not visible
Panel .3 x .1 metres
Rock face: rear wall of arc-shaped alcove
Approach: easy climb into alcove
Ground: small rocky area to stand
Viewing: below eye level

614-1 Maze Petros

5 metres above canyon floor, visible
Panel 1 x .5 metres
Rock face: flat cliff face
Approach: slight climb to ledge
Ground: large flat ledge
Viewing: overhead, but room to step back

614-2 Harvest Panel

3 metres above canyon floor, visible
Panel 50 x 4 metres
Rock face: long flat cliff face with overhang
Ground: wide, flat ledge
Viewing: overhead form ground, see detail from ledge

615-1 Junction Site

30 metres above canyon floor, visible
Panel 20 x 3 metres
Rock face: large spalled area above ledge
Approach: short climb up slope to ledge
Ground: large, flat ledge
Viewing: at to above eye level

616-1 Horseshoe High Gallery

25 metres above canyon floor, visible
Panel 5 x 2 metres
Rock face: flat cliff face
Approach: slight climb to ledge
Ground: narrow ledge
Viewing: far overhead, impossible to view well

616-2 Horseshoe Shelter

5 metres above canyon floor, visible
Panel 12 x 1 metres
Rock face: very shallow alcove
Approach: walk to cliff face
Ground: flat and sandy
Viewing: far overhead, but little detail and can step back

616-4 Horseshoe Alcove Site

3 metres above canyon floor, not visible
Panel 3 x 2 metres
Rock face: rear wall of large alcove
Approach: walk up sandy slope in back of alcove
Ground: rock pile
Viewing: art low, easy to view

617-1 Great Gallery

4 metres above canyon floor, visible
Panel 50 x 4 metres
Rock face: long cliff face with shallow arc-shaped spalled area
Approach: short climb to ledge below panel
Ground: flat and sandy, or wide, flat ledge
Viewing: overhead from ground or ledge

618-1 Bull Mountain

Level with bottom land (upland site), moderately visible
Panel 2 x 2 metres
Rock face: small cave inside large boulder
Approach: walk into boulder
Ground: flat and sandy
Viewing: art all around inside small cave

620-1 Hog Spring

45 metres above canyon floor, visible
Panel 1 x 1.5 metres
Rock face: small flat face in back of enormous alcove
Approach: steep climb up rocky slope to back of alcove
Ground: flat and sandy
Viewing: far overhead but can step back

621-1 Perfect Panel

35 metres above canyon floor, not visible
Panel 5 x 2 metres
Rock face: spalled face just above long bench
Approach: slight climb to bench, then long walk along bench to panel
Ground: flat and sandy with large rocks
Viewing: long view from ground, close from rocks and at eye level

Works Cited

Abbey, E. 1968. *Desert solitaire: A season in the wilderness.* New York: Ballantine Books.

Abram, D. 1996. *The spell of the sensuous: Perception and language in a more-than-human world.* New York: Pantheon.

Adovasio, J. 1986. Artefacts and ethnicity: Basketry as an indicator of territoriality and population movement in the prehistoric Great Basin. *University of Utah Anthropological Papers* 110:43-88.

Aikens, C. 1970. Hogup cave. *University of Utah Anthropological Papers* 70.

Aikens, C. 1976. Cultural hiatus in the eastern Great Basin? *American Antiquity* 41(4): 543-550.

Aikens, C. 1978. Archaeology of the Great Basin. *Annual Review of Anthropology* 7:71-87.

Aikens, C., and Y. Witherspoon. 1986. Great Basin Numic prehistory. *University of Utah Anthropological Papers* 110:9-20.

Aikens, M. 1972. Fremont culture: Restatement of some problems. *American Antiquity* 37(1): 61-6.

Allee, P. 1995. The Barrier Canyon Style pictographs: Why, where, what, and when they were painted. *Utah Rock Art* 15:31-44.

Alpine Archaeological Consultants, Inc. 2001. *Archaeological testing of the Bartlett Flats pictograph alcove (42GR382), Grand County, Utah.* Report submitted to Moab Field Office, BLM.

Alves, L. 2002. The architecture of the natural world: Rock art in western Iberia. In *Monuments and landscape in Atlantic Europe: Perception and society during the Neolithic and Early Bronze Age*, ed. C. Scarre, 51-69. London: Routledge.

Antevs, E. 1955. Geologic-climatic dating in The West. *American Antiquity* 20:316-355.

Anttonen, V. 1992. The concept of Phyä (sacred) in pre-Christian Finnish religion. In *Northern religions and shamanism*, ed. M. Hoppal and J. Pentikainen, 31-38. Budapest: Akademiai Kiado.

Arsenault, D. 2004. Rock-art, landscape, sacred places: Attitudes in contemporary archaeological theory. In *The figured landscapes of rock art: Looking at pictures in place*, ed. C. Chippindale and G. Nash, 69-84. Cambridge: Cambridge University Press.

Bachand, H., R. Joyce and J. Hendon. 2003. Bodies moving in space: Ancient Mesoamerican human sculpture and embodiment. *Cambridge Archaeological Journal* 13(2): 238-247.

Barnes, F. 1982. *Canyon Country prehistoric rock art.* Salt Lake City: Wasatch.

Barthes, R. 1967. *Elements of semiology.* London: Jonathon Cape.

Basso, K. 1996. *Wisdom sits in places: Landscape and language among the Western Apache.* Albuquerque: University of New Mexico Press.

Bender, B. 1989. The roots of inequality. In *Domination and resistance*, ed. D. Miller, M. Rowlands and C. Tilley, 83-95. London: Unwin Hyman Ltd.

Bender, B. 2001. Landscapes on-the-move. *Journal of Social Archaeology* 1(1): 75-89.

Berry, C., and M. Berry. 1986. Chronological and conceptual models of the Southwestern Archaic. In *Anthropology of the Desert West*, ed. C. Condie and D. Fowler, 253-327. Salt Lake City: University of Utah Press.

BLM. 1990. *Intermountain Antiquities Computer System (IMACS) site recording form.* Document number BLM 8100-1 FS R-4 2300-2. United States: Bureau of Land Management.

Bradley, R. 1997. *Rock art and the prehistory of Atlantic Europe.* London: Routledge.

Bradley, R. 2000. *An archaeology of natural places.* London: Routledge.

Bradley, R., F. Boado and R. Valcarce. 1994. Rock art research as landscape archaeology: A pilot study in Galicia, north-west Spain. *World Archaeology* 24(3): 374-390.

Bradley, R., F. Boado and R. Valcarce. 1995. Rock art and the prehistoric landscape of Galicia: The results of field survey 1992-1994. *Proceedings of the Prehistoric Society* 51:347-370.

Bradley, R., J. Harding and M. Mathews. 1993. The siting of prehistoric rock art in Galloway, south-west Scotland. *Proceedings of the Prehistoric Society* 59:268-283.

Brentano, F. 1995 (1874). *Psychology from an empirical standpoint.* London: Routledge.

Brück, J. 2004. Reply to: C. Tilley, Round barrows and dykes as landscape metaphors. *Cambridge Archaeological Journal* 14(2): 201.

Brück, J. 2005. Experiencing the past? The development of a phenomenological archaeology in British prehistory. *Archaeological Dialogues* 12(1): 45-72.

Bungart, P. 1996. Dating aceramic sites in the Orange Cliffs area. *University of Utah Anthropological Papers* 119:126-135.

Burrow, K. 2002. *The serpent motif of Barrier Canyon: Ritual and symbolism in ancient American rock art.* Masters Thesis, Virginia Commonwealth University.

Campbell, S. 2001. The captivating agency of art: Many ways of seeing. In *Beyond aesthetics: Art and the technologies of enchantment*, ed. C. Pinney and N. Thomas, 117-136. Oxford: Berg.

Casey, E. 1996. How to get from space to place in a fairly short stretch of time. In *Senses of place*, ed. S. Feld and K. Basso, 13-52. Santa Fe: School Of American Research Press.

Castleton, K. 1984. *Petroglyphs and pictographs of Utah. Volume one: The east and Northeast.* Salt Lake City: Utah Museum of Natural History.

Castleton, K. 1987. *Petroglyphs and pictographs of Utah. Volume two: The south, central, west and northwest.* Salt Lake City: Utah Museum of Natural History.

Chandler, D. 1995. *Semiotics for beginners.* http://www.aber.ac.uk/media/Documents/S4B/semiotic.html

Childs, C. 2000. *The secret knowledge of water.* New York: Back Bay Books.

Childs, C. 2001. *Stone desert: A naturalist's exploration of Canyonlands National Park.* Englewood, Colorado: EarthTales Press.

Cole, S. 1990. *Legacy on stone: Rock art of the Colorado Plateau and Four Corners region.* Boulder, Colorado: Johnson Publishing.

Cole, S. 2004. Origins, continuities, and meaning of Barrier Canyon Style rock art. *Brigham Young University Museum Of Peoples And Cultures Occasional Paper Series* 9:7-78.

Coleman, S., and J. Elsner. 1995. *Pilgrimage: Past and present in the world religions.* Cambridge: Harvard University Press.

Coomaraswamy, A. 1956 (1934). *The transformation of nature in art.* New York: Dover.

Coulam, N., and A. Schroedl. 1996. Early Archaic clay figurines from Cowboy and Walters Caves in southeastern Utah. *KIVA* 61(4).

Coulam, N., and A. Schroedl. 1997. Steward Alcove: A case of superposition dating of Barrier Canyon Style rock art. *Utah Archaeology* 10(1): 45-51.

Coulam, N., and A. Schroedl. 2004. Split-twig figurines: Late Archaic totems in the greater American Southwest. *American Antiquity* 69(1): 41-62.

Crampton, G. 1983. *Standing up country: The canyon lands of Utah and Arizona.* Salt Lake City: Peregrine Smith Books.

Csordas, T. 1993. Somatic modes of attention. *Cultural Anthropology* 8(2): 135-156.

Csordas, T. 1999. Embodiment and cultural phenomenology. In *Perspectives on embodiment: The intersections of nature and culture,* ed. G. Weiss and H. Harber, 143-162. London: Routledge.

D'Alleva, A. 2001. Captivation, representation, and the limits of cognition: Interpreting metaphor and metonymy in Tahitian Tamau. In *Beyond aesthetics: Art and the technologies of enchantment,* ed. C. Pinney and N. Thomas, 79-96. Oxford: Berg.

Díaz-Andreu, M. 2002. Marking the landscape: Iberian post-Palaeolithic art, identities and the sacred. In *European landscapes of rock art,* ed. G. Nash and C. Chippendale, 158-175. London: Routledge.

Dickey, J., and D. Christensen. 2004a. The Esplande Style: A reappraisal of polychrome rock art in the Grand Canyon region, Arizona. *American Indian Rock Art* 30:69-85.

Dickey, J., and D. Christensen. 2004b. A functional analyses of the Esplande Style. *American Indian Rock Art* 30:89-102.

Dingus. R. 1988. Places, dreams, and journeys: Long-term contexts for now and later. In *Marks in place: Contemporary responses to rock art,* (no editor), 33-38. Albuquerque: University of New Mexico Press.

Dorman, J. 1995. Prehistoric rock art of the San Raphael Swell. *Oxbow Monograph* 25:83-92.

Dornan, J. 2004. Beyond belief: Religious experience, ritual, and cultural neuro-phenomenology in the interpretation of past religious systems. *Cambridge Archaeological Journal* 14(1): 25-36.

Dowson, T. 1994a. Reading art, writing history: Rock art and social change in southern Africa. *World Archaeology* 24(3): 332-344.

Dowson, T. 1994b. Hunter-gatherers, traders and slaves: The 'Mfecane' impact on Bushmen, their ritual and their art. In *The Mfecane aftermath: Reconstructive debates in South Africa's history*, ed. C. Hamiton, 51-70. Johannesburg: Wittwatersrand University Press.

Dowson, T. 1998. Like people in prehistory. *World Archaeology* 29(3): 333-343.

Draut, A. 2005. *The geology of central and southeastern Utah: Itinerary for a one-day fieldtrip.* Online publication of The Geological Society of America. http://www.gsajournals.org/perlserv/?request=get-fieldguide-toc&isbn=0-8137-6030-8

Ego, R. 2001. A pictorial device: The dynamic action of water in a few depictions of rain animals. *Pictogram: Journal of the South African Rock Art Research Association* 12:27-34.

Eliade, M. 1959. *The sacred and the profane.* Orlando: Harcourt Brace Jovanovich.

Euler, R. 1964. Southern Paiute archaeology. *American Antiquity* 29(3): 379-381.

Euler, R. 1966. Southern Pauite ethnohistory. *University of Utah Anthropological Papers* 78.

Firnhaber, M. 2001. *Shamanism in the Barrier Canyon rock art tradition: Visual metaphor, social production and ritual consumption.* Masters Thesis, University of Southampton.

Fitch, S. 1988. About being in places. In *Marks in place: Contemporary responses to rock art*, (no editor), 59-63. Albuquerque: University of New Mexico Press

Fleming, A. 1999. Phenomenology and the megaliths of Wales: A dreaming too far? *Oxford Journal of Archaeology* 18(2): 119-125.

Flenniken, J., and J. Wilke. 1989. Typology, technology, and chronology of Great Basin dart points. *American Anthropologist* 91(1): 149-158.

Fowler, D., and C. Fowler. 1971. Anthropology of the Numa: John Wesley Powell's manuscripts on the Numic peoples of western North America, 1869-1880. *Smithsonian Contributions to Anthropology* 14.

Frachetti, M., and C. Chippendale. 2002. Alpine imagery, Alpine space, Alpine time; and prehistoric human experience. In *European landscapes of rock art*, ed. G. Nash and C. Chippendale, 116-143. London: Routledge.

Geib, P. 1996. Archaic occupancy of the Glen Canyon region. *University of Utah Anthropological Papers* 119:15-39.

Geib, P. 2000. Sandal types and Archaic prehistory on the Colorado Plateau. *American Antiquity* 65(3): 509-624.

Gell, A. 1998. *Art and agency: An anthropological theory*. Oxford: Oxford University Press.

Gell, A. 1999. *The art of anthropology: Essays and diagrams*. Oxford: Berg.

Giedion, S. 1962. *The eternal present: The beginnings of art*. New York: Pantheon.

Giedion, S. 1964. *The eternal present: The beginnings of architecture*. New York: Pantheon.

Gill, J. 1991. *Merleau-Ponty and metaphor*. London: Humanities Press International, Inc.

Goldhahn, J. 2002. Roaring rocks: An audio-visual perspective on hunter-gatherer engravings in northern Sweden and Scandinavia. *Norwegian Archaeological Review* 35(1): 29-61.

Gunnerson, J. 1957. An archaeological survey of the Fremont area. *University of Utah Anthropological Papers* 28.

Gunnerson, J. 1962. Plateau Shoshonean prehistory: A suggested reconstruction. *American Antiquity* 28(1): 41-45.

Gunnerson, J. 1969. The Fremont culture: A study in culture dynamics of the northern Anasazi frontier. *Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University* 59(2).

Hartley, R. 1992. *Rock art on the northern Colorado Plateau: Variability in content and context*. Brookfield: Ashgate Publishing.

Hedges, K. 1980. Phosphenes in the context of Native American art. *American Indian Rock Art* 7:1-10.

Hedges, K. 1985. Rock art portrayals of shamanic transformation and magical flight. *Rock Art Papers 2, San Diego Museum Papers* 18:83-94

Hedges, K. 1987. Patterned body anthropomorphs and the concept of phosphenes. *Rock Art Papers 5, San Diego Museum Papers* 23:17-24.

Hesjedal, A. 1995. Rock art, time, and social context. In *Perceiving rock art: Social and political perspectives*, ed. K. Helsog and B. Olsen, 200-206. Oslo: Institute for Comparative Research in Human Culture.

Highwater, J. 1994. *The language of vision: Meditations on myth and metaphor.* New York: Grove Press.

Holt, R. 1992. *Beneath these red cliffs: An ethnohistory of the Utah Paiutes.* Albuquerque: University of New Mexico Press.

Hopkins, N. 1965. Great Basin Prehistory and Uto-Aztecan. *American Antiquity* 31(1): 48-60.

Huckell, B. 1996. The Archaic prehistory of the North American Southwest. *Journal of World Prehistory* 10(3): 305-373.

Hunt, A., and D. Turner. 1960. Early man sites near Moab, Utah. *American Antiquity* 26(1): 110-117.

Husserl, E. 2001 (1901). *Logical investigations.* London: Routledge.

Ingold, T. 1986. *The appropriation of nature: Essays on human ecology and social relations.* Manchester: Manchester University Press.

Ingold, T. 2000. *The perception of the environment: Essays on livelihood, dwelling and skill.* London: Routledge.

Ingold, T. 2005. Landscape lives, but archaeology turns to stone. *Norwegian Archaeological Review* 38(2): 122-126.

Irwin-Williams, C. 1967. Picosa: The elementary Southwestern culture. *American Antiquity* 32(4): 441-457.

Jennings, J. 1957. Danger Cave. *University of Utah Archaeological Papers* 27.

Jennings, J. 1978. The Desert Archaic. *University of Utah Anthropological Papers* 98:29-93.

Jennings, J. 1980. Cowboy Cave. *University of Utah Anthropological Papers* 104.

Jennings, J., A. Schroedl, and R. Holmer. 1980. Sudden Shelter. *University of Utah Anthropological Papers* 103.

Karlsson, H. 1998. *Re-thinking anthropology*. Göteborg: Göteborg University.

Karlsson, H. 2000. Time for an archaeological "time-out"? In *It's about time: The concept of time in archaeology*, ed. H. Karlsson, 45-59. Göteborg: Bricoleur Press.

Kelen, L., and D. Sucec. 1996. *Sacred images: A vision of Native American rock art.* Salt Lake City: Gibbs-Smith.

Kelly, I. 1939. Southern Paiute shamanism. *University of California Publications in Anthropological Records* 2(3): 151-167.

Kelly, I. 1964. Southern Paiute ethnography. *University of Utah Anthropological Papers* 69.

Kelly, K., and H. Francis. 1994. *Navajo sacred places.* Indianapolis: Indiana University Press.

Kelsey, M. 1992. *Hiking, biking, and exploring Canyonlands National Park and vicinity.* Provo, Utah: Kelsey Publishing.

Kinahan, J. 1999. Towards an archaeology of mimesis and rain-making in Namibian rock art. In *The archaeology and anthropology of landscape*, ed. P. Ucko and R. Layton, 336-357. London: Routledge.

Knack, M. 2001. *Boundaries between: The Southern Paiutes, 1775 - 1995.* Lincoln: University of Nebraska Press.

Kroeber, A. 1901. Ute tales. *The Journal of American Folklore* 14(55): 252-285.

Lakoff, G., and M. Johnson. 1980. *Metaphors we live by.* Chicago: University Of Chicago Press.

Lakoff, G., and M. Johnson. 1999. *Philosophy in the flesh: The embodied mind and its challenge to Western thought.* New York: Basic Books.

Lane, B. 2001. Giving voice to place: Three models for understanding American sacred space. *Religion and American Culture* 11(1): 53-81.

Langer, M. 1989. *Merleau-Ponty's phenomenology of perception: A guide and commentary.* London: MacMillan Press.

Layton, R. 2003. Art and agency: A reassessment. *Journal of the Royal Anthropological Institute* 9:447-464.

Lee, G. 2002. Wahi Pana: Legendary places on Hawai'i Island. In *Inscribed landscapes: Marking and making place*, ed. B. David and M. Wilson, 79-92. Honolulu: University of Hawai'i Press.

Lewis-Williams, D. 1991. Wrestling with analogy: A methodological dilemma in Upper Paleolithic rock art research. *Proceedings of the Prehistoric Society* 57(1): 149-162.

Looper, M. 2003. From inscribed bodies to distributed persons: Contextualizing Tairona figural images in performance. *Cambridge Archaeological Journal* 13(1): 25-40.

Madsen, D. 1978. Recent data bearing on the question of a hiatus in the eastern Great Basin. *American Antiquity* 43(3): 508-509.

Madsen, D., and M. Berry. 1975. A reassessment of northeastern Great Basin prehistory. *American Antiquity* 40(4): 391-405.

Malik, S. 1989. *Modern civilization: A crisis of fragmentation.* New Delhi: Abhinhav Publications.

Malouf, C. 1935. *Some notes on the archaeology of the Barrier Canyon region, Utah.* Unpublished manuscript, Tozzer Library, Harvard University.

Manning, S. 1981. A Hypothesis for a Pueblo IV date for the Barrier Canyon Style. *Utah Rock Art* 1:31-42.

Manson, R. 1962. The Paleo-Indian tradition in Eastern North America. *Current Anthropology* 3(3): 227-278.

Martineau, L. 1992. *The Southern Paiutes: Legends, lore, language and lineage.* Las Vegas: KC Publications.

Matheny, R., D. Matheny, P. Miller, and B. Miller. 2004. Hunting strategies and winter economy of the Fremont as revealed in the rock art of Nine Mile Canyon. *Brigham Young University Museum of Peoples and Cultures Occasional Papers* 9:145-193.

McPherson, R. 1992. *Sacred land, sacred view: Navajo perceptions of the Four Corners region.* Salt Lake City: Brigham Young University.

Merleau-Ponty, M. 2003 (1945). *The phenomenology of perception.* New York: Routledge.

Morales, R. 1998. *Nordeste paintings: The case for a pan-Archaic American rock art tradition.* Masters Thesis, Virginia Commonwealth University.

Morales, R. 1999. *Horseshoe Canyon's Great Gallery: A possible relationship to Archaic performance art.* Paper presented at the IFRAO 1999 International Rock Art Congress, Ripon, Wisconsin.

Morss, N. 1931. The ancient culture of the Fremont River in Utah. *Papers of the Peabody Museum, Harvard University* 12(3).

Neihardt, J. 1972 (1932). *Black Elk speaks.* New York: Pocket Books.

Newcomb, W. 1967. *The rock art of Texas Indians.* Austin: University of Texas Press.

Norberg-Schulz, C. 1979. *Genius loci: Towards a phenomenology of architecture.* New York: Rizzoli International Publications, Inc.

Orozco, C. 1996. Sego Canyon and the Aztec calendar system. *Utah Rock Art* 16.

Ouzman, S. 1998. Towards a mindscape of landscape: Rock-art as expression of world-understanding. In *The archaeology of rock art*, ed. C. Chippendale and P. Taçon, 30-41. Cambridge: Cambridge University Press.

Ouzman, S. 2001. Seeing is deceiving: Rock art and the non-visual. *World Archaeology* 33(2): 237-257.

Peirce, C. 1931-58. *Collected writings (8 Vols.)*, ed. C. Hartshorne, P. Weiss, and A. Burks. Cambridge: Harvard University Press.

Pendergast, D., and C. Meighan. 1959. Folk traditions as historical fact: A Paiute example. *The Journal Of American Folklore* 72(284): 128-133.

Pinney, C. 2001. Piercing the skin of the idol. In *Beyond aesthetics: Art and the technology of enchantment*, ed. C. Pinney and T. Nicholas, 157-179. Oxford: Berg.

Pinney, C. 2004. *Photos of the gods: The printed image and political struggle in India.* London: Reaktion Books.

Plog, S. 1997. *Ancient peoples of the American Southwest.* London: Thames & Hudson.

Potter, J. 2002. A symbolic landscape in the Prescott region of Arizona. In *Culture and environment in the American Southwest*, ed. D. Phillips and J. Wave, 19-37. Phoenix: SWCA Environmental Consultants.

Purcell, A. 2002. The rock-art landscape of the Iveragh Peninsula, County Kerry, South-West Ireland. In *European landscapes of rock art*, ed. G. Nash and C. Chippendale, 71-92. London: Routledge.

Quinlan, A., and A. Woody. 2003. Marks of distinction: Rock art and ethnic identification in the Great Basin. *American Antiquity* 68(2): 371-390.

Rasmussen, S. 1959. *Experiencing architecture*. Cambridge: MIT Press.

Reichel-Dolmatoff, G. 1967. Rock paintings of the Vaupés: An essay of interpretation. *Folklore Americas* 26(2): 107-113.

Reichel-Dolmatoff, G. 1971. *Amazonian cosmos: The sexual and religious symbolism of the Tukano Indians*. Chicago: University of Chicago Press.

Reichel-Dolmatoff, G. 1979. Desana shaman's rock crystals and the hexagonal universe. *Journal of Latin American Lore* 5(1): 117-128.

Richardson, M. 2003. Being-in-the-market versus being-in-the-plaza: Material culture and the construction of social reality in Spanish America. In *The anthropology of space and place: Locating culture*, ed. S. Low and D. Lawrence-Zuñiga, 74-91. Oxford: Blackwell.

Rohrer, T. 2005. Embodiment and experientialism. In *The Handbook of Cognitive Linguistics*, ed. D. Geeraerts and H. Cuyckens. Oxford: Oxford University Press.

Saussure, F. de. 1983 (1916). *Course in general linguistics*. London: Duckworth.

Scarre, R. 2002. A place of special meaning: Interpreting pre-historic monuments in the landscape. In *Inscribed landscapes: Marking and making place*, ed. B. David and M. Wilson, 154-175. Honolulu: University of Hawai'i Press.

Schaafsma, P. 1971. The rock art of Utah. *Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University* 65.

Schaafsma, P. 1980. *Indian rock art of the Southwest*. Albuquerque: University of New Mexico Press.

Schaafsma, P. 1994. Trance and transformation in the canyons: Shamanism and early rock art on the Colorado Plateau. In *Shamanism and rock art in North America*, ed. S. Turpin, 45- 71. San Antonio: Rock Art Foundation, Inc.

Schaafsma, P. 2000. Warrior, shield, and star: Imagery and ideology of Pueblo warfare. Santa Fe: Western Edge Press.

Schafer, H. and J. Zintgraff. 1986. *Ancient Texans: Rock art & lifeways along the Lower Pecos.* Houston: Gulf Publishing Company.

Schroedl, A. 1977. The Grand Canyon figurine complex. *American Antiquity* 42(2): 254-265.

Schroedl, A. 1989. The power and the glory: Shamanistic arts of the Archaic period. *Canyon Legacy* 1(1): 13-17.

Schroedl, A., and N. Coulam. 1994. Cowboy Cave revisited. *Utah Archaeology* 7:1-34.

Schwartz, D., A. Lange, & R. DeSaussure. 1958. Split-twig figurines in the Grand Canyon. *American Antiquity* 23(3): 264-274.

Slifer, D. 2000. *Guide to rock art of the Utah region: Sites with public access.* Santa Fe: Ancient City Press.

Smith, B., and J. Blundell. 2004. Dangerous ground: A critique of landscape in rock-art studies. In *The figured landscapes of rock-art: Looking at pictures in place*, ed. C. Chippendale and G. Nash, 239-262. Cambridge: Cambridge University Press.

Stewart, O. 1942. Culture element distributions XVIII: Ute-Southern Paiute. *University of California Publications in Anthropological Records* 6:231-360.

Stoffle, R., L. Loendorf, D. Austin, D. Halmo, and A. Bulletts. 2000. Ghost dancing the Grand Canyon. *Current Anthropology* 41(1): 11-38.

Strange, W. 1987. Hogback, nave, and choir: Reporting architectures of holiness. *Rock Art Papers 5, San Diego Museum Papers* 23:61-72.

Sucec, D. 1992. Seeing spirits: Initial identification of representations of shamans in Barrier Canyon rock art. *Canyon Legacy* 16:2-11.

Sucec, D. 1996. Water at Buckhorn Wash: Symbolism in Barrier Canyon Style rock art. *Utah Rock Art* 16:1-18.

Sucec, D. 1995. Toward a typology of Barrier Canyon Style spirit figures: Early findings of the BCS Project (1991 - 1995). *Utah Rock Art* 15:61-75.

Swan, J. 1990. *Sacred places.* Santa Fe: Bear & Company Publishing.

Swartz, B., and T. Hurlbutt. 1994. Space, place and territory in rock art interpretation. *Rock Art Research* 11(1): 13-22.

Taçon, P. 2002. Rock-art and landscapes. In *Inscribed landscapes: Marking and making place*, ed. B. David and M. Wilson, 122-138. Honolulu: University of Hawai'i Press.

Taylor, D. 1957. Two Fremont sites and their position in Southwestern prehistory. *University of Utah Anthropology Papers* 29.

Thybony, S., and F. Hirschmann. 1994. *Rock art of the American Southwest.* Portland: Graphic Arts Center Publishing Company.

Tilley, C. 1994. *A phenomenology of landscape*. Oxford: Berg.

Tilley, C. 2004a. Mind and body in landscape research. *Cambridge Archaeological Journal* 14(1): 77-80.

Tilley, C. 2004b. Round barrows and dykes as landscape metaphors. *Cambridge Archaeological Journal* 14(2): 185–203.

Tilley, C. 2004c. *The materiality of stone: Explorations in landscape phenomenology.* Oxford: Berg.

Tilley, C. 2005. Bodily thoughts. *Norwegian Archaeological Review* 38(2): 126-129.

Tilley, C., and W. Bennett. 2001. An archaeology of supernatural places: The case of West Penwith. *Journal of the Royal Anthropological Institute* 7:335-362.

Tipps, B. 1995. Holocene archaeology near Squaw Butte, Canyonlands National Park, Utah. *Selections from the Division of Cultural Resources, Rocky Mountain Region, National Park Service* 7. Rocky Mountain Regional Office, National Park Service, Denver.

Tipps, B., and N. Hewitt. 1989. Cultural resource inventory and testing in the Salt Creek Pocket and Devils Lane areas, Needles District, Canyonlands National Park, Utah. *Selections from the Division of Cultural Resources, Rocky Mountain Region, National Park Service* 1. Rocky Mountain Regional Office, National Park Service, Denver.

Turpin, S. 1994a. On a wing and a prayer: Flight metaphors in Pecos River art. In *Shamanism and rock art in North America*, ed. S. Turpin, 73-102. San Antonio: Rock Art Foundation, Inc.

Turpin, S. 1994b. The were-cougar theme in Pecos River-Style art and its implications for traditional archaeology. In *New light on old art: Recent advances in hunter-*

gatherer rock art research, ed. D. Whitley and L. Loendorf, 75-80. Los Angeles: UCLA Institute of Archaeology.

Turpin, S., and J. Zintgraff. 1991. *Pecos River rock art: A photographic essay.* San Antonio: Sandy McPherson Publishing Company.

Van Ness, M., and E. Hansen. 1996. Archaic subsistence in the Glen Canyon Region. *University of Utah Anthropological Papers* 119:117-125.

Versluis, A. 1992. *Sacred earth: The spiritual landscape of Native America.* Rochester: Inner Traditions International.

Waller, S. 1999. Rock art acoustics in the past, present and future. *International Rock Art Congress Proceedings* 2:11-20.

Waller, S. 2000. Spatial correlation of acoustics and rock art exemplified in Horseshoe Canyon. *American Indian Rock Art* 24:85-94.

Waller, S. 2002. Psychoacoustic influences of the echoing environments of prehistoric art. *Journal of the Acoustic Society of America* 112.

Warner, J., and J. Warner. 1985. Barrier Canyon Style solar shrines: An argument for rock art and ceremony. *Utah Rock Art* 5.

Wellman, Klaus F. 1975. Some observations on the bird motif in North American Indian rock art. *American Indian Rock Art* 2:97-108.

Whitley, D. 1994. Shamanism, natural modelling and the rock art of far western North American hunter-gatherers. In *Shamanism and rock art in North America*, ed. S. Turpin, 1-43. San Antonio: Rock Art Foundation, Inc.

Whitley, D. 2000. *The art of the shaman: Rock art of California.* Salt Lake City: University of Utah Press.

Wroth, W. 2000. *Ute Indian arts and culture: From prehistory to the new millennium.* Colorado Springs: Colorado Springs Fine Arts Center.

Yates, T. 1993. Frameworks for an archaeology of the body. In *Interpretive archaeology*, ed. C. Tilley, 31-72. Oxford: Berg.

Young, J. 2004. Ethnographic analogies in southwest rock art. *Brigham Young University Museum of Peoples and Cultures Occasional Papers* 9:79-102.